Address
on
CLINICAL MEDICINE.

Delivered before the Clinical Society, Jan. 26, 1872.

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I SHALL have to-night to throw myself very much upon the indulgence of the Society in any remarks I may have to make, because I have not had time to dress them in such words as I should desire in order to place them properly before you. Many circumstances, which I need not dwell upon, have prevented my better intention; but I should not be satisfied to take the chair and assume the honour which you have conferred upon me without some remarks. It is not becoming that I should do so either in respect of the honour you have bestowed upon me or the work in which we have to engage, since, as president of this Society, I am in some sense your spokesman to the world concerning the objects we have before us.

Our position is a somewhat peculiar one. We are partially antagonistic to the theologic and the scientific aspects of the world as generally presented to us. We differ in opinion in one sense, and, I think, in a very serious sense, from that section of theologians who regard the world as a decaying world—as a world that was once better than it now is; who believe there was a past, however limited, without disease or death; who regard the troubles and perils which now exist as the result of a condition which I shall not now discuss, and which evils we must bear as well as we can, with but little hope they will be better, and with the fear that they may be worse. This is, I think, entirely opposed to the view which, as students of nature, we are obliged to entertain. Whoever will take the least pains to look over the facts of creation may see that this world has always been evolving into the higher and better—that it has always had a coming future of good, not having reached perfection, and not, in the present condition of things, very likely to reach it, but ever advancing towards it. Thus, whilst the one set of thinkers regard the world as decaying, we look on it as improving—improving in all respects, in its physical conditions as well as in its moral and intellectual conditions; and as a Society we meet here year by year and work together towards the end which this idea sets before us. We are, as it were, the optimists of nature. We believe—though we rarely see signs of it, and working more by faith than by sight—that this world has, amidst all its diseases and its failures, a law of perfection with its inexhaustible fruits in store for it; and when we see individual suffering, disease, deformity, or premature death, we regard them as the failure of a law which in our minds we faithfully recognise, though its operations are frustrated.

Again, believing as I do that this is the view which we all entertain, that to-morrow will be better than to-day, and the day after better than that—as in the days of convalescence, when the last are always the best,—still I think we are hindered by considerations, coming from the side of physical science, which we owe it to ourselves not to receive as final, and which would make us forego that hope which the student of the lower forms in nature is very apt to deny himself. Such a one is apt to think we have before us all the conditions that are possible in respect of intellect, and that science has got its proper *rôle* marked out for it which cannot be altered, and a line beyond which it cannot pass. The student of medicine, however, occupied with facts which cannot now be included in the scientific conceptions of the day, is perhaps better placed than his colleague in the lower physics for the expansion of his ideas, if only in this—that he must believe that the intellect will open for us a wider world beyond and incommensurable with that which we now consider the scientific, the limit of which at this moment is the limit of the ponderable and the measurable. If the early animal inhabitants of this planet could have met in conclave they might well have concluded that there was nothing conceivable beyond their own degree of mental organisation, and could anyone have foreshadowed to such dull intelligences the mental activity of man, he must have met with an obstinate and sceptical denial. The student of medicine can as little deny the subjective as he can the objective. If he resists the inroads of superstition, on the one hand, neither can he admit the limit of scepticism on the other. We are often taunted with being servile worshippers of nature, and yet we are so only in a limited way. We cannot believe that nature, as thus vaguely expressed, is in such sense perfect. Though we are admirers, we are not blind devotees. Nature, as expressed to us in living forms, shows the tendencies to perfection, though in many parts but imperfect. We are met here to-night in view of imperfection, and with that as an object for the operations of the intellect.

To turn more especially to the object of our work, this living organism of ours. There is no doubt that it is of the first importance to every practical man to obtain the largest and truest view of the object on which he is occupied. One of the greatest advances in clinical medicine, and which daily grows, is the more thorough physiological view of disease. Disease is not now regarded as some independent entity in the body, but as a perversion of those life conditions which when normal constitute the state of health. We no longer regard disease as a graft on an already healthy part. The time is gone by when text-books could teach, as I and probably many others here had to learn, that acute disease may be idiopathic in healthy subjects.

In one sense there is no such thing as disease. Abstracted from care and pain disease sinks at once into the ordinary course of physical phenomena, and would rank in a far different category of natural phenomena. It is well sometimes to look at our facts in such light, to accustom the mind to other conceptions, although I fear that if we maintained such a position we should hardly be welcome to the sick, and certainly the science of medicine or cure could not exist. Skin for skin, what will not a man give for his life? and every man has to consider, and well consider, his own personal existence and comfort, and that is a practical view of disease which we, as medical men, have to take. Still, as I say, it is well sometimes, for the due enlargement of the conceptions of the mind, to get views beyond that which is merely personal, and to consider that those conditions which we call disease belong to a still larger class of phenomena.

We have got, I am happy to say, a long way beyond definitions, or you might perhaps expect one of disease from me. I do not, however, think that there is any member of this Society, or of the Pathological Society, or of the Medico-Chirurgical Society, that would venture to give a definition of disease. Disease is not a status, not a definable condition, but that course of nature in a living thing which is not according to its health. It is, whatever else it may be, such a course of nature in the individual.

This view of disease takes in a beginning, a middle, and an end. It takes in a beginning. The beginning of anything carries us a long way. We have to consider conditions afar off in the past to come to a beginning; therefore it is important to remember that, in disease, we are dealing with physiological conditions in a course of nature which has had a distant beginning. Disease to the ignorant is some entity; something that must be searched out and contemplated by itself, and, if need be, attacked and exorcised as an evil spirit. That idea has given us a word still existing in medicine, "seizure." A man, we say, has had a "seizure." But what is it he is seized by? The old theological notion was that an evil spirit entered the sick man; the error is gone, but its mark remains, and still conveys some part of the popular notion. Seizures, however, there are none, though we still use the word to express the beginnings of disease, and although to the ignorant it still implies something *ab extra* that must be got out of the individual as soon as possible. To the charlatan, disease is a

different conception. It is a set of symptoms which must be attacked at all points with drugs and means of cure. Every symptom has its remedy. Attack, say these ignorant pretenders, the symptoms, and let us found a system on it. To such, therefore, disease is only a set of symptoms upon which to traffic with drugs, in either great or small doses. To the students of a truer medicine the causes, and not the symptoms, are the objects. It is a history and not a definition.

I said just now that to our notions of disease as duly corrected, many things formerly called disease could not now be so considered. Yet such errors do obtain in the practice of our profession, and many states are still considered and treated as diseases which certainly are not diseases at all. Thus it may be fairly said there are some people who are made to ail, and, without having disease, are born to suffer. Under the present condition of things, they cannot maintain a comfortable equilibrium. They are always ailing. Medicine fails on such. Unstable health is their law, in spite of the contents of the Pharmacopœia. In practical medicine it is important to recognise this. It is so equally in reference to the conditions of age. And this at various periods of life. Of tissues, as of the whole man, it may be said there is a time to be born and a time to die, but for different individuals this cannot well be determined, and the diagnosis may be difficult. Yet I may appeal to my hearers if they cannot recall cases where they have prescribed all the farrago of so-called tonics, with as good a purpose as if they would thereby strive to prevent the setting of the sun. Thus, I repeat, there are states too hastily regarded as disease, which are to the individual his normal existence. Such are the peculiarities of some persons when measured by the cases of others. Such are the normal senile changes of the body. Such, too, are the abnormal senile changes produced by disease. For in many diseases there comes a time when the conditions undergo change, and we get a new order, not strictly dependent upon that which preceded; as, for instance, syphilis may cease to exhibit its proper effects, but may have produced such a general influence on the nutrition as to lead to early decay: syphilis ceases as syphilis, but leaves decay. Thus the problems with which we have to deal may change, even as we are occupied in their solution, and that which we have to deal with in the end may be entirely different from that with which we began. Iodide of potassium may cure a syphilis, but the cachexia of the organism caused by the syphilis and its remedies may never be cured, but may advance in spite of all specifics, being no more disease than the decay of advanced age is disease.

Then let us consider the extent of our work: all the disturbing influences and the various morbific agencies that act upon our organism. I sometimes think that if, instead of covering these walls with books hardly ever read, we were to emblazon them with a list of all the morbific agents and agencies which may disturb our health, from the itch insect to the typhoid poison, the gain would be great. I am old enough to know—I am not sure that there may not be others here who may remember also—that itch was once considered to be a constitutional disease! I know those who believe now that pityriasis versicolor may depend upon hepatic or uterine disorder! Our supposed knowledge of other diseases may, though unsuspected, be equally at fault.

To know in exact detail the lines of morbid action and seats of primary operation of morbific causes would be of incalculable worth to us. Upon what tissue, for instance, does the scarlet fever poison first operate? "Oh," it will be said, "upon the blood." But this may be very much doubted. It is more than doubtful if the blood be affected directly by the poison of this and other fevers. Many organs with which the blood has most to do show no change. Look at the voluntary muscles: they receive much blood, but do not primarily go wrong. Look at the choroid and other deep vascular tissues of the eye, which, however richly supplied with blood, do not get particularly involved in the early phenomena of scarlet fever. It may be much doubted if our notions about the blood are not very vague, and I must appeal to the members of this Society to help us to improve our knowledge, and where we are wrong to correct it. To help us, in respect of morbid poisons, to determine upon what tissues they first act, and what is the first step of their operation. Their entry and exit from the blood may be but indifferent events. Probably, and almost certainly, they do pass through persons indifferent to their operation. What we want to know in clinical medicine is where, according to their quality, they act. We may know where pityriasis versicolor begins and limits its operations, but we do not know when and where the poison of scarlet fever first begins to rankle, or when or how the poison of small-pox first begins its fatal work.

There is much hope that comparative pathology will teach us something on this subject. We are learning that there are parts in us more and other than we individually want, and without which we should be no losers: the relicta of our ancestral relations. Other organisms may have needed parts which may be superfluous and even injurious to us. A perfected comparative anatomy and pathology may teach us more on this. Probably, coming, as it seems we have, through a long line of dissimilar ancestry, there may have been entailed upon us elements not especially needful or useful. This opens an inquiry whether, if there be such parts or organs, they may not be, from their very nature, more liable to disease, since those parts whose functions are least definite are apt to be the foci of pathology. In this every pathologist will bear me out in respect of malformations and malformed parts. Those are commonly the seats of disease. Instance the cancer of undescended testicle. The vitelline duct in the ovum of man, considering the size of the ovum, must have but a microscopic function. It may be the vitellus is but the relictum of the ovipara. But however this may be, I do not suppose its function in man is great either in respect of time or space; and mostly the vitello-intestinal duct is equally transient as we may suppose its individual importance to man to be. Still it sometimes persists and grows with the intestine, giving rise to a large and by no means unimportant diverticulum of the ileum, remaining, in fact, as a relictum. Our museums contain frequent instances of this, but there happens to be in the museum at Guy's an instance of such a diverticulum in a more perfect state retaining its connexion with the umbilicus. It is from the body of a young man aged thirty-six, who had enjoyed perfect health until his fatal attack due to this superfluity. Owing to cold, or some such circumstance, an irregular peristalsis of the intestines twisted them round this useless part and set up a fatal obstruction, so that to him was applicable, with a change of a word, the epitaph of Burton, the author of the "Anatomy of Melancholy," and I requested it might be thus recorded:—"Cui vitam et mortem dedit diverticulum." How much longer and happier perhaps would have been this man's life had his oviparous ancestry not entailed this vitellus and its duct upon him. Perhaps my illustration may admit of critical objections, but there still remains the suggestion, that an advanced comparative anatomy and pathology may show there are some organs in us which, as individuals, we might be much better off without. These sciences may tell us more of the vital history of different organs and tissues. Like the bees, we must go far afield in these regions for our honey, and gather from every source of knowledge, returning home to study the special life and function of every fibre and organ.

[Sir William Gull's engagements have not allowed him to revise the remainder of the report, and at his request we hold it over till next week.]

BLEEDING IN PNEUMONIA.—When a medical man has to combat this affection, he either confines himself to expectation, or gives large doses of brandy, or takes blood from the arm, according to the school to which he belongs. Of course some regard is to be paid to the particular patient, and to the nature of the prevailing epidemic tendencies; but it still remains very melancholy that such enormous diversity should exist—a diversity which, to a lay observer, would look quite monstrous. However this may be, we think it right to refer to the essay of Dr. Simorre, practising in a country place of France, inserted in the *Tribune Méd.* of Paris, January 14th, 1872. Here a series of cases are related, wherein the patients were bled copiously at the very outset, again in four hours, lesser quantities of blood being taken at longer intervals two or three times afterwards. No other treatment than demulcent drinks. All the patients recovered.

ABSTRACT
OF
Clinical Lectures
ON
SURGERY.

Delivered at Guy's Hospital during the Session 1871-72.

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LECTURE II.
ON UMBILICAL HERNIA.

GENTLEMEN,—I take the opportunity of bringing under your notice to-day a case of umbilical hernia which has been for some months past under my care, and which during the last week has been completed by the death of the patient and the subsequent post-mortem examination. I do not propose to enter minutely into any abstruse details, but shall confine myself to a few of the practical points which the case before us would seem to enforce. Here is the report:—

Anne F——, aged fifty-four, a widow, living at Kensington, was admitted July 31st, 1871, into my female ward. She has had two children, the second now many years ago; and the catamenia ceased twelve years back. Six years ago she had an apoplectic fit, and lost the use of her limbs for twelve months. She is also subject to what she calls "inflammation of the stomach."

The history of the hernia commences ten years since, when she noticed a small swelling the size of a pea at the umbilicus, which she could take up and move about. She thinks it was produced by leaning out of window. She was not pregnant at the time. The tumour gradually increased, though she could always push it back again "into its place," and she was enabled to keep herself generally comfortable by a self-made truss worn tightly round the abdomen.

Five days ago the tumour came forward during the night as large as an egg, and she was now unable to return it. She was seen by a medical man, who told her she was ruptured, and ordered her to apply poultices and hot fomentations to the abdomen. This treatment failed to relieve her, and stercoraceous vomiting, it is said, commenced; the bowels were, however, opened several times by the aid of medicine. She has had very much abdominal pain since, and, getting worse rather than better, applied for admission to the hospital.

She was put to bed, a subcutaneous injection of morphia given, and reduction of the tumour attempted unsuccessfully by the dresser. The following is a note of her state at that time:—"She looks ill. There is a large and hard swelling about the navel, which is pushing itself forward through the abdominal wall; it is of the size of a fœtal skull, rounded and somewhat pendulous, with a broad neck, passing downwards and forwards, and lying in a wide semilunar fossa formed by the abdominal wall below the inferior margin of the umbilical ring. It is hard and brawny to the touch, and the skin over it is discoloured, large and blue veins running just beneath the surface. It is freely movable with the abdominal wall. An impulse is felt in the tumour when the patient coughs, but it is not clear that this is anything more than part of a general impulse communicated to the whole abdominal wall. Pain is felt at the umbilicus of a sharp and burning character."

The symptoms were not urgent at her admission, and when I saw her some hours afterwards she had had no vomiting, had passed a good night, and the tumour had decreased in size, ice having been constantly applied to it. She was ordered half a grain of opium three times a day, and the ice was continued.

On August 5th, five days after admission, it is noted that she has not been sick since she came to the hospital, and the tumour has much diminished in size since the application of the ice. The bowels have acted to-day for the first time for five days. During the next week the bowels acted daily, the excreta being of a natural character. On the 17th, she got up for a short time, after which she vomited. She says that the tumour is painless so long as ice is kept to it. On the 29th she retched a good deal, but was not sick, and she had more pain in the tumour. Under these circumstances, Mr. Howse, who was taking charge of the wards during my absence, decided to attempt reduction of the hernia under chloroform, but no effect was produced upon the size of the swelling. She was sick several times after the chloroform, but the bowels acted naturally. During the next three weeks her condition fluctuated; at times she was better, so that she could take a little solid food, at others worse again, with complete loss of appetite. All this while the bowels continued very irregular, constipation lasting for twelve successive days at one period. On September 25th, ice being still applied to the hernia, the skin was noticed to be red and inflamed at its lower part on the right side. The skin gave way on the 30th, establishing a fistulous communication with the bowel, through which flatus and fæces passed. The fæcal matter was dark brown and fluid for the most part, though solid masses did occasionally come away.

From this date she went gradually down hill. Nausea and vomiting returned at times, and nearly all the intestinal excretions passed by way of the fistula. A fortnight or three weeks after the formation of the first opening, a second came on the left side, again at the most dependent part of the tumour, at what might be called its free border—i.e., where the anterior free surface joined the posterior, which rested in contact with the abdominal wall behind it. The last-formed aperture was the larger one, and most of the motions now came by it, but by *both* some fæcal matter passed; they also discharged a copious amount of pus.

During the last month of life no passage occurred by way of the rectum, till two days before death, which took place on November 18th. She had taken but very little nourishment for days previously, and had been latterly subject to strange illusions.

The post-mortem examination was made on the day of her death. It is unnecessary to read to you the whole report, so I shall confine myself to the account of the parts concerned. The abdominal cavity was opened by cutting out a large piece of the skin, with the sublying muscular wall surrounding the umbilicus. The protruded bowel was next divided a little on either side of its entrance into the sac, and the hernia was then taken out *en masse*. The abdominal walls were immensely laden with fat, as were also all the abdominal viscera which have fatty connexions. The incarcerated portion of bowel was found to be the transverse colon near to its left or splenic flexure, this part being dragged over to the median line. From the after-dissection it seemed that the omentum attached to this part had first entered the orifice of the sac, which, when cleared of its contents, measured about three-quarters of an inch in diameter; the omentum, becoming adherent to the farther wall of the cavity, had dragged in the *lower margin* of the bowel after it, thus producing a diverticulum from this border without detracting much from the normal calibre of the large intestine. The next step had probably been one of adhesion between the intestine and the sac; but inasmuch as a large mass of omentum was already adherent to the most dependent part, the bowel was prevented from forming a uniform pouch lining the hernial cavity, and it had, consequently, only united with the sides of the sac, that part which would have lined its bottom being pushed up towards the neck by the contained omentum. By this means two sacculi, or horns of bowel, were formed, separated from each other at the deeper part of the hernia, though having a channel continuous with each other and with the original colic canal at the neck of the sac. The two diverticula had subsequently ulcerated at their blind extremities, and openings had formed externally, as narrated in the report. Some recent inflammatory mischief had apparently taken place at the neck of the left diverticulum, so that at the time of the post-mortem examination this existed only as a blind pouch with one external opening. Nothing could be made to pass from it into the colon. The channel on the right side was much smaller than the pouch on the left, since the former would only admit an 8 gum-elastic catheter, while the latter would take the index-finger. The canal on the right side was also very tortuous and irregularly constricted; indeed, the passage was so

obstructed that water could not be injected along it. The colon at the neck of the sac would admit the thumb easily. In addition to the bowel which was in the sac, and which really occupied but a very small part of the space, was a large mass of fat, apparently forming part of the mesentery. This had entered with the bowel, and had then become adherent. It had nearly obliterated the neck of the hernial bag, and had considerably narrowed the opening from the colon proper into its protruded portion. Till the fat had been dislodged, the orifice would only admit the tip of the little finger. The whole length of the intestine, both small and large, was much contracted; the part beyond the hernia, however, was less so than the earlier part of the intestine. The part above the hernia was quite empty; that below it contained some scybalous masses. The general peritoneal surface was healthy.

And now let us review one or two features of the case. This patient was *said* to have an umbilical hernia when admitted, the diagnosis had already been made, and it had now only to be confirmed. But let me ask, in the first place, suppose that any of you had been called to see the case in private practice, with no one at hand to indicate the direction your inquiries should take, with no experienced mind to tell you what was the nature of the disease, by what symptoms or appearances would you arrive at a conclusion as to its nature? It is all very well for you, as students in a hospital, to be able to learn at once that a good case of this or that disease has been brought in; but the convenience has its drawbacks, and one of these is that many of you go to the bedside with your minds prepared to see a case—say of umbilical hernia,—and you see it, and go no further. Now I would have you always to remember that, no matter what the disease, and whether or not you have ascertained beforehand its nature, you must invariably put to yourselves the question how your seniors have diagnosed it as such, and what are the points in any given case that will lead you to recognise it at once when it is met with again.

In the case under consideration the history alone is sufficient for the purpose. Notice that the patient had a movable tumour, which she could reduce at pleasure, and that by wearing a truss she kept herself quite comfortable. These three points would lead one to say confidently that this woman was suffering from a hernia; the seat of the protrusion you would localise by looking at the body.

In the second place, observe that our patient is of the female sex. This is generally the case with umbilical hernia. Women are much more liable to it than men, and women that have borne children more so than single or sterile women. Think of these facts, and you will see in them an illustration of a law to which I called attention at our last meeting, when I told you how that the weaker parts of our frame feel most the effects of additional strain—that the spoiled parts bear the brunt of disease. Now the weak part of any woman's abdomen is the umbilicus: in females who have been pregnant the abdominal wall has been much stretched and the recti separated; therefore, other things being equal, the median line of the abdomen will be weaker in them than in those where the parts have not been so stretched—i.e., than in childless women, or *a fortiori* than in men, in whom there is the pressure of strong and well-developed muscular walls to keep back the abdominal viscera. This is a case in point: our patient was exceedingly stout and had been pregnant; her abdominal walls were consequently weak and flabby, and the least supported spot of this confessedly insecure wall gave way, and allowed the descent of a hernial protrusion.

Five days before admission an important change is noticed in the monotonous ten-year history of the patient. The tumour suddenly increased in size during the night, and she could no longer put it back again. Why it should have thus come down at this particular time is doubtful; possibly it was owing to some fit of coughing, or other slight strain, while the patient was without her truss. It is, however, my own opinion on this point that the descent of a hernia is by no means so subject to accidental strains for its cause as to a constitutional state, in which diminished nerve force and weak muscular tension are the prominent characteristics. In corroboration of this the report says, very significantly, as I think, that "she has wasted lately."

Well, the patient was admitted with a large tumour, which is described as being the size of a fœtal skull, and rounded in form. Now the shape of umbilical herniæ is very irregular; they may often be seen much like what is represented in the drawing passed round, and in which the tumour is seen to consist of two parts, a large mass above and a smaller one below; they are sometimes, again, almost lobulated—indeed, they may be likened very much to fatty tumours from their appearance alone, and this likeness is carried still further by the manipulative symptoms, seeing that to all intents and purposes most of these cases are really fatty tumours, the greater part of them being filled with omentum. Thus the sensation given to the hand is that of a mass of fat between the fingers. The contents of these herniæ, I may say, are very various, as far as intestine is concerned: some contain much of the bowel; others only a very small piece. In one case, under my colleague Mr. Hilton, the cæcum was found in the sac; and I have seen the stomach, a great part of the large and half the small intestine, in the protrusion—indeed, so enormous do they at times become that nearly all the intestinal canal may be said to be outside the abdomen, in the hernial pouch.

The next point that you should notice is one that has an important practical bearing when an operation is necessary. It is well marked in this preparation which I send round, and in which the coats of the hernia are displayed. Observe that the skin is remarkably thin. This is the normal condition, and is not an attenuated one, the result of disease. So delicate is it at times that one is tempted to think the intestine can be seen beneath. The skin having been reflected, you come down upon the layer of fat, generally very thin and compressed; but this may vary a little. Beneath this is the transversalis fascia—the internal spermatic fascia of the inguinal region; and under this again is the peritoneum or sac. All these are very thin then, and there are no well-marked layers as in other parts. No thin coat and that to be cut through; no nice dissection to be made. The whole thickness, I say, of umbilical herniæ depending upon the fat between the transversalis fascia and the skin, which may vary a little; the other coats never do. In operating, therefore, you are down upon the sac and its contents immediately; and much care is required, more especially if you wish to divide any constriction without opening the peritoneal cavity.

Continuing our review of the history, we find that vomiting set in soon after the descent of the tumour, five days before admission; and the vomit is said to have been stercoraceous. However, no severe symptom of strangulation occurred after she was admitted; indeed, for some time the report distinctly states she was not sick. I commend this to your notice, because the same rule holds good in umbilical as in all other herniæ—that vomiting, persistent vomiting, is the imperative sign of urgent strangulation. Here, then, was a patient with no vomiting (this had ceased for some hours when I saw her); a tumour with some impulse on coughing; while manipulation only gave omental signs. What, then, was the probable state of things inside the sac? Why, surely that, though the bowel might have been strangulated at first, it was so no longer; that it was only incarcerated, or, in other words, *irreducible*. Under these circumstances, I should not have been justified in submitting this woman to an operation. I say this now for your rule of guidance; and at the same time I tell you that, with the completion of the case before us as we have it to-day, it might perhaps have been better for our patient if we had operated. This fact, however, does not alter the rule that *without vomiting the surgeon must not operate*. In this case ice was applied to the tumour, and an injection of morphia administered subcutaneously to relieve pain. We attempted to reduce the tumour, but this failed. As she was not sick, I did not think it necessary to give chloroform and try reduction by that means, because, if there is a long history of rupture, one may take for granted that the principal part of the swelling is due to adherent fat, which cannot by any means be returned; while the sudden increase may be owing to the nipping of a small piece of fresh bowel, which in most cases is very easily liberated. The probability is that some small coil was temporarily strangulated here, and that my dresser, in his attempt to reduce the mass, pushed this back into the abdominal cavity. The neck of the sac, moreover, is usually very large, and only very exceptionally causes obstinate strangulation.

A word here as to attempting reduction, not only of um-

bilical but of all herniæ. A golden rule for practice I believe to be this: never attempt to reduce a hernia except with the patient under the influence of chloroform. I believe more harm is done by violent taxis when the patient is straining than by letting the bowel alone. Strong language this, but I repeat that so much damage is done to the intestine by those who know nothing of the injury they inflict as to counterbalance much of the good which is unquestionably done when cases are operated upon early. You had much better give an anæsthetic, and so do away with all chance of muscular effort, than push and squeeze, and push again, for one, three, ay, four hours, or several times during the evening—a history of magnificent effort which has not unfrequently been narrated to me. Make, then, one decided attempt under chloroform; and, if it fail, operate. You cannot hear this too often, because forcible taxis and delay in operating are the great causes of death of all cases in our hospital. First comes the private medical man—he tries perhaps several times; then the dresser; then the house-surgeon; and then the advanced student who may happen to be looking on; and, lastly, the surgeon is sent for, and he very wisely at once operates. I cannot put the case more forcibly than this—that, if I myself had a rupture, no one should try to reduce it except the operator, with the proviso that if he failed after a very moderate attempt he should at once proceed with the knife. I look upon the operation itself as one of the easiest, the safest, and simplest of the severe procedures of surgery. Cases of umbilical hernia in which operations have been performed are most fatal for this very reason, that so much taxis and delay take place; and, aptly illustrating the converse of this, two cases came under my care, not so very long ago, in which the medical gentleman in attendance showed an amount of intelligence which was quite delightful. I saw both these cases within four hours—one within two—of the descent of the hernia, and in both I operated within an hour of seeing them, and they both got well—a very unusual thing in cases of umbilical rupture. To return to our patient once more. The bowels acted soon after her entry, and continued so to do, though irregularly, thus proving that the manipulation had in her case returned the bowel.

The last point that I would call your attention to is the fact that, on the 30th of September, two months after her admission, a fæcal fistula formed—that is to say, an opening formed between the intestine and the skin. It probably occurs somewhat in this way: the bowel in the sac gets some fæcal accumulation in it, which starts inflammatory mischief; adhesion then takes place between sac and bowel, new material is formed, and ulceration then occurs. A slight extravasation of fæcal matter takes place into the new adhesion-tissue, and an abscess forms, a slough of the skin usually forming over the collection of matter, and the fistula is completed. You will notice that this sketch of the process in our patient rather differs from that which goes on in the more usual form of fæcal fistula, the sequel to hernia. The rule is that ulceration takes place round the neck of the sac from the pressure of constriction, just as it would do if a piece of string were tied round one of your fingers. A fistula is the most favourable result that can happen in a case of strangulated hernia if left to nature; it is, in fact, the natural mode of cure, though I think we must say that the cure is only better than the alternative. I have seen more than one instance of such a result in umbilical hernia in obstinate old women. One old lady told me once that she would sooner die than be operated upon; well, she did not die, but she had one of these horrid apertures discharging her motions for the rest of her life. In our case most of the excreta came by the fistulæ. It was brown and very fetid, pointing to the seat of constriction as low down in the large intestine, and if you will examine the specimen on the table, you will see that the hernia was at the left end of the transverse colon. I may mention that during the last month of life no passage of fæcal matter took place by the rectum; this is unusual, the calibre of the bowel is generally wide enough—it was so in this case—to admit of the passage of much of the intestinal contents into the sigmoid flexure and rectum.

A PARLIAMENTARY RETURN shows that in the two years 1869 and 1870 there were no less than 26,950 cases of accidental deaths in this country.

CONIUM IN THE TREATMENT OF ACUTE MANIA.

BY J. CRICHTON BROWNE, M.D., F.R.S.E.,
MEDICAL DIRECTOR, WEST RIDING ASYLUM.

IT has been lately intimated that the sedative treatment of mental diseases characterised by excitement is neither necessary nor desirable. Dr. Maudsley has hinted that recovery is retarded rather than hastened when sedatives are had recourse to; and has questioned whether "the putting the nerve-cells of the patient's brain into chemical restraint, so to speak," by the use of such remedies, "does really benefit them." The arguments which have been thought to justify these speculations have not yet been fully set forth; and, as they must doubtless be of a weighty nature, it may seem rash, when only partially acquainted with them, to dispute the propriety of the practical suggestion which has been founded upon them. That practical suggestion is, however, so thoroughly opposed to the teachings of experience and of modern pathology, and derives so little feasibility from the insinuations by which it is accompanied, that it challenges the immediate examination of those who are engaged in the treatment of insanity, and who are anxious to be able to give some reason for the therapeutical faith that is in them.

To prove that sedatives have been highly valued in the treatment of mental excitement from the very earliest times when medical science was brought to bear upon insanity, would not, perhaps, count for much in these days in which the wisdom of ancestors is disallowed in anything less obvious than the invention of the wheelbarrow, were it not that, in the present instance, the wisdom of our ancestors is in happy accord with that of ourselves. Sedatives are still all but universally employed in lunatic asylum practice, and have not as yet forfeited in any degree the confidence of those who are most familiar with them. And that confidence is by no means so blindly empirical as is supposed by Dr. Maudsley, who is certainly in error in asserting that "no one has ever yet tried the experiment of treating one case of acute insanity without giving any sedative whatever, and of treating another case as nearly like it as possible with sedatives, and of observing the result." I have no hesitation in saying that that experiment has been repeatedly instituted, and has led to a conviction, in those who have tried it, in all respects favourable to sedatives. In two cases in which I myself applied that very test, I found that a rapid recovery took place in that in which a sedative was used, and that protracted excitement and a tardy convalescence had to be encountered when everything was trusted to the course of nature. It does certainly excite surprise to notice a case of puerperal mania, in which recovery occurred in *four months*, referred to by Dr. Maudsley as an instance of the success of a non-sedative treatment.

That sedatives have the power of subduing mental excitement is not denied, so that the question is simply whether it is judicious to employ that power. Now mental excitement is a sure indication of disordered activity in the delicate nerve-cells and tissues of the cerebrum; and not only so, but it is a rough gauge of the severity of those encephalic changes of which it is the outward expression. When the excitement is mild in character, interrupted in progress, or of brief duration, we infer that it coincides with mere functional derangement. When it is intense in type, of firm persistence, and of long continuance, we conclude that it betokens some organic alteration. Whether, however, it is intense or mild, of organic or functional origin, we know as a certainty that mental excitement corresponds with morbid processes or changes which have an enfeebling influence upon the structures affected by them, and which may eventuate in permanent weakness or decay of those structures, or in systemic death. We know further that the evil consequences of that destructive metamorphosis upon which excitement depends are serious and far-reaching just in proportion as that metamorphosis was extensive and protracted. Where the waste is rapid and the excitement

fierce, exhaustion and death are apt to ensue; where they are protracted and uncontrolled, dementia or relapses may be anticipated. Only where they are moderate and short-lived can complete recovery be looked for. The testimony of those who have had large opportunities of observing insanity will establish that in acute mania, life and the restoration of reason are jeopardised in proportion to the intensity and duration of the mental excitement, which constitutes its chief symptom, and of the histolitic processes the presence of which that excitement betrays. My own investigations have satisfied me that there is a constant relation in general paralysis between the amount of maniacal excitement by which its progress is marked and the period at which death supervenes, as well as the extent of the pathological changes which are essential to the disease. In recurrent mania it is acknowledged that every attack of mental excitement leaves an increased weakness of the brain behind it, and that thus it is that the intervals between the attacks are gradually shortened.

The above considerations, without any multiplication of examples, make it evident that the cerebral conditions upon which mental excitement depends are most pernicious in their immediate and remote effects. It would seem to follow, as a necessary corollary, that it is of the first importance, as far as possible, to reduce the severity and curtail the duration of these cerebral conditions, so that their effects may be mitigated. This corollary, however, does not secure assent. Dr. Maudsley asks if it is a proper thing to stifle excitement, which suggests the inquiry if it is a proper thing to stifle fire. Both, when they have overleapt their ordinary boundaries, hurry to destruction. The nerve-cells of the brain have no innate tendency to energise in a beneficent and healthy manner. In education they have to be stimulated in some directions and repressed in others. In disease they do not develop any new principle of spontaneous rectification. Insanity is not a self-limited disorder, running a determinate and inevitable course. On the contrary, it may be arrested or indefinitely prolonged. And even if it were self-limited, that would be no reason for abandoning all attempts to modify its progress. Pyrexia may be fitly compared with mental excitement, which is, as it were, the fever of the mind. In many bodily diseases the prognosis may be founded on the height of the pyrexia, as in mental diseases we have seen it may be drawn from the height of the excitement. Well, what is the modern treatment of pyrexia? Why, to reduce it by all possible means. Those who have made acquaintance with the writings of Jürgensen, Liebermeister, and Ziemssen in Germany, and of Dr. Wilson Fox in our country, will allow that certain fevers have had a new hopefulness conferred upon them by the practice of applying a most powerful sedative — viz., cold water—to the burning skin. All observers agree as to the inestimable value of this method of treatment in diminishing mortality, and in altogether averting certain symptoms of a distressing kind. Well, sedatives are to the excited mind what cold water is to the fevered body. They cool the heated faculties; they soothe and comfort the agitated brain; they chemically restrain the exuberant nerve-cells. Chicago would not have been desolated had adequate restraint been exercised on the conflagration at its outset; and many an inflamed mind would be saved alive could the excitement which consumes it be got under at once. The sedative treatment of excitement is not contra-indicated by any special pathological condition. Whether that excitement originates in excessive functional activity of the vesicular neurine, in defective nutrition of that tissue, in peripheral irritation, or in alterations in the quantity or quality of the blood-supply, well-chosen sedatives may always with other remedies be suitably employed. Dr. Maudsley, of course, repudiates all this. "Let a person," he says, "be made artificially lunatic by belladonna. Who would, if called to treat him, prescribe a dose of chloral or a dose of opium?" Dr. Maudsley must have forgotten the researches of Anderson and Bell, and the fact that opium has actually been successfully used as an antidote to belladonna, or he would not have asked such a question. When mental excitement is indubitably due to blood-poisoning, we should no more on that account refrain from attempting its subdual by sedatives than we should on the same ground hesitate to staunch a hæmorrhage or to relieve pain. The *materies morbi* is not eliminated in incoherence, delusions, and muscular agitations, but is probably fed and reproduced by the disintegration of tissue which these promote.

The objection that sedatives cut short excitement by inducing dementia, and not only restrain but disable the nerve-cells, will be refuted by a reference to experience. The facts that, notwithstanding the calumnies which have been uttered against them, they are still held in high esteem by sagacious practitioners, and that an addition to their number is hailed as a boon to humanity, ought to indicate that the tranquillity which they create is not so deadly and deceptive as has been represented. In this paper will be found recorded a number of cases in which, under the use of an arch sedative, unmistakable improvement, not only in weight, appetite, and temperature, but in mental condition, took place, in which primary excitement was calmed and secondary dementia curtailed. Another opportunity will be taken of combating some statements derogatory to opium which have been made, and of reporting results differing from those which Dr. Clouston has obtained in his experiments with that drug. The analogy drawn between the prejudicial effects of mechanical restraint applied to the limbs and the action of sedatives can hardly be intended as a serious argument. To say that because strait-waistcoats did harm sedatives can do no good would be as if to contend that shutting off the steam must be futile because holding on by the fly-wheel had been found ineffectual.

(To be continued.)

THE SUCCESSES AND FAILURES OF A PUBLIC VACCINATOR.

BY G. E. YARROW, M.D., L.R.C.P. LOND., &c.

IN putting together a few thoughts on the above subject which my short experience as a vaccinator suggests, I am desirous not to be thought dogmatic or dictatorial, but influenced solely by the belief that "he who inherits a benefit incurs a responsibility."

I commenced duties as a public vaccinator October, 1868, and between that date and July, 1871, I vaccinated nearly 7000 persons. The exact number of cases of which I have record is 6558. Of these 4017 were primary cases, and 2541 were revaccinations. The results were as follows: Of the primary vaccinations 42 proved unsuccessful, 45 remain uninspected, and 1 has received a certificate of insusceptibility; of the revaccinations, 197 were unsuccessful, 25 uninspected; leaving as known successful primary cases 3929, and successful revaccinations 2319. The 70 cases which remain uninspected are due to the persons having given a wrong address, or removing after the operation. Of the 239 unsuccessful cases, 11 primary and 3 revaccinations were found to be suffering from small-pox on the eighth day. During the months of January, February, and March of this year, 3000 were vaccinated, one-third of which were revaccinations. The ages at which the primary operation was performed varied from twenty-four hours to sixty-nine years, and the ages of the revaccinations from two years to ninety-nine years.

The chief desiderata to carry on a station successfully are, in my opinion, that the room should be commodious, and situated as centrally in the district as possible. The official aspect of a public station has great weight with many persons, and its situation is well known if it be also used for public meetings, &c. Another consideration (which to me has been an invaluable one) is the assistance of an able and willing inspector. Of Mr. Neighbour I cannot speak too highly; he thoroughly understands the duties, as a proof of which I may mention that he was called upon to give evidence of the working of the Vaccination Act before the late Committee of the House of Commons. He is also the sanitary inspector of St. Luke's, and in that capacity is armed with power to enter houses and apartments, which authority he would not possess if he were simply a vaccination officer. Having thus obtained admission, the condition of the occupants with reference to vaccination is soon ascertained; and from his known power to deal with sani-

tary questions, he is a terror to the lowest of our population, and they readily submit to his suggestions.

It is the duty of the district medical officers to acquaint the sanitary inspector with any case of infectious disease that may arise in their districts. He thus gets early information of any case of small-pox, and can at once take steps to see that all the inmates of a house have the advantages of vaccination pressed upon them, and compel them to take any unvaccinated children to my house immediately to have the operation performed, I having obtained the sanction of the board of guardians to vaccinate in all cases of emergency at my residence.

Once a week the inspector obtains a list of children who are above three months old, the certificate of whose successful vaccination has not been received by the registrar; and proceeds to serve notices on the parents to have the operation performed forthwith, attends himself at the station on the vaccinating day, and thus ascertains to what extent his notices are complied with. While there he is occupied in taking the names and addresses of the children on a sheet of paper for me, and places against each the number of the vaccinifer as I operate; and when all the work is done I copy them into my register. This plan saves a great deal of time and confusion. Whilst I am operating the inspector also ascertains if any children do not return for inspection, visits them the same day, and requests that they be brought to my house in the evening. Very little lymph is thus lost.

I have selected Monday as the vaccinating day because I secure the attendance of a class of persons who would not so well be able to attend on any other day. Monday is made a holiday by many of the lower classes (they do not, as a rule, seek the "green fields," but simply visit their friends in the neighbourhood), and, having lost one day in the week, they are unwilling or unable to afford more time. I have chosen 2 o'clock in order that the dinner hour of the family may not be interfered with.

The age of the child I prefer to use as a vaccinifer is three months, or else not until the first dentition is completed: the chances of syphilis being undetected by me are then at the smallest, not that I believe the disease can be inoculated unless blood be taken with the lymph. During the late epidemic I have vaccinated many infants under seven days old, but cannot say that I have reason to be satisfied with the result; the vesicles are hastened, and on the eighth day have a flattened and yellow appearance, so there are but few cases I select as vaccinifers.

The mode of operating I adopt is by puncture. The lancet being well charged and inserted from above downwards, the lymph gravitates into the small valvular openings thus made. I do this in five places on one arm only, charging the lancet once; although I do not thus obtain such large vesicles as by the plan of tattooing, I think it is more applicable to large numbers being done rapidly, with less show of blood.

I vaccinate on one arm instead of both, as it is more convenient for nursing, and the vesicles are not so likely to get rubbed.

The number of punctures I make was at first much objected to by the parents, who had been in the habit of saying how many "places" they would like; and I am still frequently asked not to "cut them" in more than two or three places. This I believe accounts in great measure for the bad repute vaccination has acquired as a protection against small-pox, practitioners being desirous of pleasing tender-hearted mothers, at the same time fulfilling the letter of the law. During the last summer many mothers came to me in alarm at the appearance of a rash after vaccination. I found it invariably to be what is known as vaccine lichen; and the cases, without exception, yielded to treatment by warm baths and a dose or two of castor oil. I have seen two cases of severe erysipelas after vaccination. The first occurred three weeks after the operation, and after the scabs had fallen off; the history of this case I have published, and I believe it arose from the rubbing of the arm against the side of the cradle. In the second case, erysipelas occurred within eighteen hours of the operation being performed, and, as in the first case, I could not trace its cause to the lymph used; for twelve infants were vaccinated from the same vaccinifer, and the lancet was the same I used for all my operations on that day, and no ill befell any of the other infants vaccinated. I drew a line with caustic immediately below the shoulder and above the elbow, and applied cold water, and although the arm was severely inflamed for several days, the vaccine vesicles became mature in due course. I gave a little simple saline medicine, and the child did well.

I must have revaccinated many pregnant women, but have record of only 20 cases, operated on between the third and ninth months, and I have never seen any unfavourable symptoms arise. I have only once hesitated to perform the operation under the circumstances, and that in a woman who habitually aborted.

With reference to the storing of lymph, I give a decided preference to points. The following will show whether or not upon good grounds. A case of small-pox occurred in St. Luke's Hospital for Lunatics on Jan. 18th, 1871, and I was requested by the authorities to vaccinate the whole of the inmates, amounting to 169. Of course, arm-to-arm was out of the question, and I used tubes as the next quickest mode to about 100. About half failed; so with the remainder, who were more tractable, I used points, and, with few exceptions, they were successful. I revaccinated about 200 *employés* in a firm with points; only 10 failed, and several of these I found had been done two months previously. I vaccinated 50 police-constables from tubes; 40 failed. These, with 5 exceptions, were afterwards successfully vaccinated from points.

There are many facts I have not alluded to, fearing my communication might become tedious.

Old-street, 1871.

INTESTINAL WORMS.

By WILLIAM DATE, M.R.C.S.

ALTHOUGH it is probable that worms in the human intestine never cause the death of their host, yet they undoubtedly often give rise to symptoms of an alarming character. Moreover, they are so common and so disagreeable in their effects that it may not be out of place to consider the different species met with in this country, the symptoms they cause, and the treatment they require. Many of these cases, either from the real nature of the symptoms being overlooked or from being considered beneath notice by the regular practitioner, fall into the hands of quacks. These persons, by drastic remedies, succeed in expelling the worm, often without curing the patient, and reap all the credit of success. I have resided for some years in places where intestinal worms were prevalent, and have thus been led to devote some attention to their nature and to a trial of various remedies recommended for their relief; and I propose to lay the results at which I have arrived before the readers of THE LANCET.

There are only four species of intestinal worms commonly met with in this country, and which now need to be considered. These are: the Tæniæ or tapeworms—viz., Tænia solium and Tænia mediocanellata; the Ascaris lumbricoides, or long round worm; and the Oxyuris vermicularis, or short thread worm. The long thread worm (Trichocephalus dispar) is also said to occur frequently. If so, the symptoms caused by its presence are indefinite, and, owing to its small size and brownish colour, it escapes observation. The broad tapeworm (Bothriocephalus latus) is common in Switzerland and northern Europe, but is never seen in this country except in imported cases.

The two indigenous species of tapeworm have a considerable general resemblance, and are often confounded one with the other. Tænia mediocanellata may, however, be easily distinguished from Tænia solium by the flat head and absence of hooklets and by the larger size of the joints. In consequence of this distinction not having been observed, T. solium was formerly supposed to be much the more common of the two in this country. It is now conceded that the reverse of this is the truth. Practically there is not much gained by distinguishing the species, as there is not much difference in the symptoms, and the treatment is the same for both. T. mediocanellata is rather the more robust and difficult of expulsion.

The old notion of the spontaneous generation of worms in the intestinal mucus is long since exploded. Thanks mainly to the patient investigations of the German helminthologists, the general conditions under which tæniæ originate from ova, grow and arrive at maturity, have been accurately noted and recorded in all the stages of their development. The ova are never matured in the human intestine, but are discharged either in the parent proglottis or in a free state. After a sojourn on the face of the world more or less brief, during which embryonic formation takes place, they are swallowed by swine or by cattle. In the intestine of their new host the embryo becomes released by the solution or rupture of its envelope, and, by means of a boring apparatus, penetrates its way into the muscles of these animals, where it becomes encysted. In this state it forms the "cysticercus" or "measle," which, in pork, is the larval condition of T. solium, in beef and veal, of T. mediocanellata. These cysticerci, when swallowed by man, become developed into the mature animal of the respective species. Besides pork, beef, and veal, it is possible that certain parts of the sheep may be the medium for the introduction of tapeworm. The embryo of T. serrata, swallowed by sheep, becomes encysted in the muscles, or bores its way into the brain, and there becomes developed into the Cœnurus cerebralis, the cause of that peculiar disease called the "staggers." This cœnurus administered to dogs develops into T. serrata. Now Von Siebold says that T. serrata is only another form of T. solium. If so, then the cœnurus might be the cause of T. solium in man.

A great outcry has recently been raised against sewage-grown-produce as a medium for the dissemination of entozoa. Whether this charge is just is far from certain, but, inasmuch as it is supported by a practical helminthologist like Dr. Cobbold, it certainly demands investigation. It is said that the ova floating in the sewage adhere to the crops, and are thus swallowed by the animals fed upon this produce. I cannot, however, see that ova are more likely to be transported on to the land in liquid sewage than they are in solid manure. The contents of our cesspools or the refuse of our dry-earth closets must be equally liable to contain them, and it appears to be at least questionable whether they would not adhere as readily to the roots or stems of plants when conveyed in the latter medium as in the former. Nor am I aware of any positive evidence brought forward to support the charge. On the other hand, Dr. Cobbold himself has recently dissected and examined with minute care a cow reared and fattened on sewage-grown produce alone, and he has, with great candour, admitted that the animal was entirely free from internal parasites of any kind whatever. Although Dr. Cobbold afterwards endeavours to explain away the force of this absence of entozoa and to lessen its influence on the controversy, there appears no reason to doubt that it is a fact of great weight, and forms a piece of evidence of much importance to the defence.

Patients suffering from tapeworm sometimes present a characteristic appearance which is easier to recognise than to describe. There are dark circles round the eyes, a white and pasty complexion, enlarged pupils, an absent, purposeless expression, with a hesitating manner and unsteady gait, giving a general impression of languor, both mental and bodily. There is often a peculiar "sinking" sensation about the epigastrium, with nausea and faintness. Pain is often complained of, and is described as being of a gnawing character. The appetite is capricious—sometimes voracious, sometimes the reverse. The tongue is generally pale and flabby. Females frequently suffer from derangement of the uterine functions and palpitation of the heart. Dr. Graves mentions a case in which a cough which long resisted treatment was speedily cured by the expulsion of a tapeworm. When the symptoms point to tapeworm as their origin, the motions should be examined for a few days. As a separation and discharge of the caudal joints is a frequent occurrence, their appearance will often decide all doubts.

Many are the remedies which have, at one time or other, been recommended for tapeworm. It is only necessary here to refer to two or three of them. *Turpentine* acts with a considerable degree of certainty, but, if given in an effectual dose, is apt to produce disagreeable intoxication and strangury. *Kousso* was at one time a fashionable remedy. It is not easily obtained genuine, and (perhaps for that reason) is uncertain in its action and not to be relied upon. *Kameela*, a powder which consists of minute glands from the capsules of Rottlera tinctoria, has been highly lauded. It is said to be certain and speedy in its effects, and not more unpleasant in action than an ordinary purge.* I have tried it in a few cases, and found, when given in effective doses, that patients complained of the severe griping pain which it induced. Dr. Garrod says he has found its active purgative properties rather objectionable.† For the last few years I have been accustomed to rely entirely on the etherial tincture of the root or rhizome of the male shield-fern (*Aspidium filix mas*); and, when properly administered—i. e., after due preparation of the patient,—I have found it thoroughly efficient. Sometimes, however, it requires a considerable amount of persuasion to induce the patient to submit to the necessary restrictions, which are certainly by no means pleasant nor always convenient. No food must be taken after breakfast except mutton-broth or tea. In the evening the patient takes a brisk dose of castor oil or compound senna mixture. The object of this is to clear away accumulated mucus, and expose the worm to the full action of the vermifuge. The following morning, early, one drachm and a half of liquid extract of male fern, rubbed up with half an ounce of mucilage, should be taken in about two ounces of milk. It is better to lie quiet for two or three hours after taking this dose, otherwise it is apt to cause nausea and faintness. At the expiration of that time another aperient dose should, if necessary, be administered, since the male fern itself does not always purge. Milk is the favourite food of the worm, and is therefore the best vehicle for the administration of the medicine. It is commonly recommended to be taken as food the day before. I regard this as a mistake, as the animal becomes satiated with it, and is thus more likely to avoid the poison. Nothing but broth or tea should be taken until the bowels have been evacuated, unless it be a little brandy-and-water in case of faintness. After undergoing this ordeal the patient may be allowed a week's rest. The whole process should then be repeated. This time perhaps no fragments of the worm will be expelled. I have given the male fern in several cases with perfect success after other remedies had failed. In no instance have I found it necessary to give more than three doses, although I always give one dose after any joints are expelled. Generally the whole of the worm has been killed by the first dose, and thus only two doses have been required. It is seldom the head can be found, owing to its small size, and, perhaps, its maceration in the intestinal juices. The discovery of some of the smaller joints may be regarded as tolerably satisfactory evidence of the destruction of the worm.

Being satisfied as to the entire expulsion of the worm, the next thing is to prevent the development of others. For this purpose, two indications are to be observed:—1. To avoid the introduction of living embryos. 2. To restore the tone of the intestinal mucous membrane, so that it may not offer a favourable nidus for their development. *No meat should be eaten which has not been thoroughly subjected to the action of heat.* It is clear that tapeworms cannot originate *de novo* in the intestine. It may not be possible always to avoid the "measle," but we may always kill it by fire and render it innocuous. To fulfil the second indication nothing is more useful than a mixture of nitro-hydrochloric acid with a bitter infusion. If there be much anæmia, as there often is, a few minims of tincture of perchloride of iron may be added to each dose, as in the following mixture:—Dilute nitro-hydrochloric acid, three drachms; tincture of perchloride of iron, a drachm and a half; syrup of oranges, half an ounce; infusion of quassia to eight ounces: take one ounce three times daily. At the same time general hygiene should be well attended to. The diet should be plain and nourishing. A daily sponge bath also will be of service.

(To be concluded.)

* Aitken: Science and Practice of Medicine, vol. i., p. 903.
† Garrod: Materia Medica, p. 313.

THE annual meeting of the Governors of the Halifax Infirmary was held on Thursday, the 18th ult., when a favourable balance-sheet was read, and a legacy of £2000 announced. The cost of the site of land purchased for the new infirmary was £2420, but this sum would be returned by the executors of the late Sir Francis Crossley.

NOTES ON A CASE OF RHINOLITH, OR NASAL CALCULUS.

BY JAMES F. WEST, F.R.C.S.,
SENIOR SURGEON TO THE QUEEN'S HOSPITAL, AND CONSULTING SURGEON TO THE BIRMINGHAM DENTAL HOSPITAL.

THE accompanying case is worthy of note from its extreme rarity, and from the fact of its producing loosening of the teeth on the opposite side to that on which the calculus was found. Nasal calculi generally, as in this case, form around some foreign body which has been accidentally introduced. This patient cannot remember anything having been inserted into his nostrils, so that probably it had been there for ten or more years, and its existence only became apparent when it led to a disagreeable discharge from the nostril, to bulging of the nasal process of the superior maxillary bone, and to loosening of the central and lateral incisors.

G. B——, aged seventeen, a boy of strumous habit, and a parish apprentice to a tailor, came to the Dental Hospital in this town on the 2nd of August, 1871. Mr. C. Sims, one of the dental surgeons of that institution, found the nose, especially on the right side, much swollen; and also much inflammation and tumefaction of the upper lip and gum. The central and lateral incisors were very loose. He had an offensive discharge from the nose, and was in much pain. He stated that the swelling came on suddenly two days previously, without any assignable cause. He had suffered six months before in a similar way, and was for a few days an out-patient at the Homœopathic Hospital, and then obtained relief by using fomentations to the nose. He had never had syphilis or any injury to the parts. Mr. Charles Sims, thinking it a case for consultation, brought the patient to me. It was decided as a tentative proceeding to extract the left upper central and lateral incisors, they being very loose. Mr. Sims removed them on the 5th of August; a copious discharge of very offensive pus followed the extraction. He was directed to syringe the mouth and nose with ozonised water.

The gum quickly assumed a healthy appearance, and the boy was much relieved. He attended as an out-patient at the Queen's Hospital; but not getting much better as to the nasal symptoms, on Nov. 13th I made another examination of the patient, when an oval calculus, weighing twenty grains, was discovered by a probe, and removed with dressing forceps in two pieces from the right nostril. It was half an inch in length, and a quarter of an inch in breadth, and was composed of phosphate of lime and magnesia, concreted around a pebble the size of a large pea. The punctum lacrymale on that side was so closed that no tears could pass into the nostril. I therefore deemed it necessary to slit it up, and to pass an Anel's probe down the nasal duct.

On Nov. 20th the nose was much less swollen; the discharge diminished, and the tears were passing naturally into the nose. The lachrymal probe was again used. No caries of bone has taken place. The nose is nearly of its proper proportions, and the boy is quite well.

Birmingham, Jan. 1872.

CASE OF OSSIFIC DEPOSIT UNDER THE DURA MATER.

BY J. DEANE, M.A., M.D., &c.

THREE years ago A. B——, at that time twenty-two years old, applied to me complaining of occasional vomiting, recurring about three or four times a week. There was no other symptom, except that the urine was rather too free. I looked on it as a case of very obscure and imperfect cerebral disease. After his visit to me I began to think of diabetes. He called the next day, and I told him to bring me some of his urine. As he did not come, I called on him three or four days afterwards, and was told that he had gone, or was going, to the hospital. I saw no more of him professionally until I was called to assist at his post-mortem examination on the 22nd November last. I had been frequently at his house, as I attended his wife in her confinements, and also had the children under my professional care; but as he was not my patient, I never made any medical inquiries in any incidental conversation I had with him. He was at times under the care of several medical men in turn. I saw him three or four months ago, and thought as I passed him that he might readily become insane. Before going to the post-mortem, I learnt from Dr. Grove, who had attended him more or less for some time back, that he could find no trace of disease in the lungs, heart, liver, or kidneys, but that the man had lost flesh very gradually—more like a patient with hepatic or pulmonary disease; and he gave full proof of cerebral mischief, but of what type there was no evidence. Three weeks before death he became maniacal, and for his last twenty-four hours he was comatose. Urine natural. There was a fixed notion among his friends that he died of pulmonary consumption.

The post-mortem solved the whole difficulty. Under the dura mater and on the upper part of the right hemisphere of the brain there was a projection of a "bluish" aspect, and on cutting through it we found on the arachnoid and adherent to it a piece of bone about three-quarters of an inch long, half an inch wide, and averaging one-third of an inch thick, irregular in shape, smooth on its upper surface, pitted and porous on its under surface, where it had vascular attachments to the arachnoid and was adherent. All the upper surface of the right hemisphere was congested, the ventricles were full of serum, and, on tilting up the back so as to aid gravitation from the cavity of the spinal dura mater, serum poured out freely from the spine. There was no trace of disease in any other part of the body, so that death arose from this piece of bone, gradually formed, and, as it formed, destroying the nervous system.

There are reasons for recording this case. It is, first of all, rarely met with. Then, again, it is extraordinary in the imperfect range of head symptoms and in the way in which it affected all the other organs and gradually undermined the powers of life. It shows also what a post-mortem can sometimes do in throwing light on obscure symptoms, and in giving the certainty of almost exact science to what was before only a reasonable opinion. It is hardly right that so much should be expected of us, and that we should be so often deprived of the best mode of investigating disease. A special advantage was obtained in this case in the protection of the honourable estimate of one of our profession, for without a post-mortem there would always have been among his friends an unsettled opinion about the cause of his death. A mystery is often a source of dissatisfaction and of unjust surmisings. The post-mortem proved that Dr. Grove was right from the first in considering the case to be one of cerebral congestion. It also proved that the case was from the first hopeless.

St. Ives, Hunts, Dec. 1871.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

REMOVAL OF A LARGE FIBROUS POLYPUS FROM THE PHARYNX.

AMONG the operations on Saturday, the 27th ult., was one by Mr. Henry Smith of more than usual interest. The patient was a lad of about twenty, who had a large fibrous polypus growing from the upper part of the pharynx behind the posterior nares, probably from the pterygoid process of the sphenoid. The mass hung down behind the nostrils, completely blocking them up, and pushing forwards the soft palate to a very considerable extent. Its presence seriously impeded respiration, and the patient's health had deteriorated in consequence of the faulty

aëration of the blood. His respiration, especially during sleep, was extremely noisy, and he had proved from this cause a source of great annoyance to the other patients in the ward. Mr. Smith has had one other case almost exactly like the present, which, strangely enough, had been sent to him from the same village.

The growth, which was as big as a moderate-sized pear, was removed without much difficulty. The patient being anæsthetised, and a gag having been placed in the mouth, the mass was seized with a pair of strong polypus forceps passed into the mouth with the left hand, and dragged forcibly forwards. An examination was then made with the forefinger of the right hand passed up behind the palate; and the fact was ascertained that the tumour grew by a fine pedicle from the situation above mentioned. A second pair of polypus forceps was then passed through the right nostril, by which the pedicle was seized quite at its root, and by a little twisting in this situation, whilst forcible traction was kept up in the mouth, the whole mass broke away, and was removed through the mouth. Considerable hæmorrhage ensued, and it was necessary to discontinue the anæsthetisation. When the hæmorrhage had ceased the nostrils were examined, and a second independent polypoid mass was found in the left nostril, and removed in the ordinary way.

TENOTOMY.

Sir William Fergusson divided the extensor tendons of the four larger toes of the right foot of a girl about twelve years old. She was the subject of slight talipes equinus. In this condition there is, said Sir William Fergusson, a tendency to draw the toes upwards, so that the patient walks almost entirely upon the distal ends of the metatarsal bones. In consequence of this, a row of troublesome corns is apt to be engendered along the line of pressure; and, the knuckles of the toes being forcibly drawn up against the upper leathers of the boot, corns appear in this situation also. This condition of things is very painful, and the foot is rendered utterly useless. It was to remedy this that the present operation was performed. Both feet were affected, but Sir William had thought it best to operate upon one at a time, and had chosen the worst for the first operation.

HYDROPS ARTICULI; TREATMENT BY TAPPING.

The subject of this affection was a man aged fifty-nine, a patient of Mr. Henry Smith's. He had suffered from chronic effusion into his knee-joint, which had resisted every form of treatment. As a *dernier ressort*, Mr. Smith tapped the joint with a small ordinary trocar. Eight ounces of fluid were drawn off, the limb was placed upon a splint, and the man was sent home. This was effected about eight months ago in the out-patients' room. He made a perfect recovery, and regained a considerable amount of movement in the limb. Six months later, however, an abscess formed on the outside of the joint, for which he was admitted to King's College Hospital. The abscess being opened, it was found to extend round the upper part of the joint, but to have no connexion whatever with its interior, which, to all appearances, is healthy.

LONDON HOSPITAL.

REMARKS ON A CASE OF CHOREA IN A DOG.

(By Dr. HUGHLINGS JACKSON.)

THE following account of chorea occurring in the dog is most interesting and instructive. Should the prognosis be fulfilled, we hope that Dr. Hughlings Jackson will make the post-mortem examination, and enable us to lay the results before our readers.

By the kindness of Mr. Gibbons, Dr. Hughlings Jackson was able to show to several gentlemen a bull-terrier bitch, the subject of chorea. The animal is now about fourteen months old, and has been under Mr. Gibbons' care since she was two or three months of age. At first the dog suffered from distemper; there was very little discharge from the nose; she had sore-throat, cough, and suffered from "frothy lungs." She got well of these symptoms, but she remained emaciated, and her back was arched. Her appetite returned fairly. Three weeks or a month later (all the dates are approximative only) "the brain was attacked," and "it went down the spinal cord," the animal losing the use of all her limbs, and being entirely helpless. It was about a fortnight after the palsy set in that the choreal movements were observed. They began in the tail, then the lower jaw was affected (it worked up and down), and afterwards the right fore and hind legs.

At the present time the dog is in good general health, has a good appetite, and is very good-tempered. There is no cardiac murmur, and the optic nerves are normal. The only part which is markedly affected is the *right* fore-leg. The movements are very different from those in chorea of the human subject. The leg makes a great number of movements up and down, and from front to back, and the whole limb, including the shoulder, moves together. There are chiefly rapid repetitions of *one* movement rather than, as in the human subject, successions of *different* movements. The left fore-leg moves but slightly, scarcely perceptibly, so little that it is doubtful whether the apparent movement be not a shock from the movement of the right leg. The *left* eyelids are now and then affected, the eye rapidly closing and opening, and Mr. Gibbons reports that occasionally there are up-and-down movements of the jaw (not face). There is no movement in sleep. Mr. Gibbons believes that his patient will not recover from the chorea. The patient's sister suffered from distemper, and was paralysed, but recovered without any choreal movements.

Chorea is not very uncommon in *young* dogs, and it almost invariably follows the distemper. As remarked, the movements are not like those of choreal children. Youatt says, "It first appears in one leg or shoulder, and is long or perhaps entirely confined to that limb. It looks like a series of pulsations, and averages from forty to sixty in a minute. Oftener perhaps than otherwise, both legs are affected." The difference in the uses of the limbs of the dog and man implies differences in the nervous centres, and therefore from disease of the centres of the dog we shall have different symptoms from those seen in the human subject. It is an important matter to learn what the distemper is, in order to find out why it is the usual precursor of chorea. Dr. Hughlings Jackson thought the post-mortem appearances were most like those of measles, but he has only dissected two dogs who have been killed during the distemper. There were "frothy lungs" (bronchitis). Speaking under the head of distemper (which he calls "catarrha simplex") Blaine says, "In some cases the nervous affection, instead of being paralytic, is one of true chorea, or St. Vitus's dance; a convulsive twitching attacks sometimes the head, sometimes one limb, less frequently is it universal from the first, but it often becomes so, doubling up the animal into the most extraordinary contortions." In the two cases of distemper Dr. Hughlings Jackson examined, he found no vegetations on the heart's valves to countenance the idea that chorea in the dog is the result of arterial embolism. According to Blaine, "the ethmoid cells and turbinated cavities" in the *last* stage of distemper are ulcerated, and he suggests that changes in the brain occur either by continuity of substance or by metastasis (plugging of cerebral veins?). After violent fits (he says nothing of the appearances in chorea) in distemper "the membranes of the brain are usually found highly charged with blood, and when these have continued an unusual length of time some softening of the cerebral substance itself, with effusion of serum in the ventricles of the brain." Possibly if a dog were killed early in the course of its chorea we might discover local changes.

Dr. Hughlings Jackson queried if chorea occurred in the cat, and would be glad of references to any American, French, or German works which deal with the clinical history and pathology of dogs, cats, horses, sheep, &c.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

CASE OF CLONIC SPASMS OCCURRING ONLY WHEN THE PATIENT ATTEMPTS TO STAND.

(Under the care of Dr. RADCLIFFE.)

THE patient, who is a young milliner aged twenty-one, was frightened in August last, shortly after which she was troubled by a sense of weight in the limbs, and this was quickly followed by clonic spasms of a peculiar character, which have continued to the present time. While she is

sitting in her chair there is no evidence of any diseased condition. She can move and control her feet and hands perfectly well. Resting her hands on the arms of the chair, she can raise her body off the seat of the chair with ease. She can kneel down without difficulty. The moment she attempts to stand, however, she is seized with a violent clonic spasm of the legs. The spasm has a certain regular character, jerking the body, arms, and head violently up and down; but there is no muscular contraction, except in the muscles of the legs. It lasts as long as she attempts to stand, but the instant she sits down it ceases. She complains of great pain in the back. In spite of a variety of treatment, her condition has not improved. She has had two similar but far less severe attacks, one two and a half and the other four years ago. Her father has been twice confined in an asylum with maniacal delirium tremens.

We are indebted to Dr. Gowers for the facts concerning the above case.

BRADFORD INFIRMARY.

LIGATURE OF ARTERIES FOR ANEURISM.

THE three following cases occurred among the patients under the care of Mr. J. N. TERRY.

Femoral Aneurism; ligature of the right external iliac artery.—H. M——, aged thirty-six, overlooker in a worsted mill, was admitted into the Bradford Infirmary on the 20th July, 1869. He complained of severe pain in the right hip-joint, with numbness down the leg to the toes; but he did not mention any swelling in the groin, nor was he aware that the leg was at all swollen, but persisted that he had got rheumatism only. He was a spare-built man, very steady, and rather of the scrofulous diathesis. On careful examination, the right leg was found to be swollen, with a great deal of venous congestion of the whole limb, and a dusky appearance of the skin throughout. On examining the groin a small pulsating tumour was found, about the size of a hen's egg, with a distinct bruit; and on pressure being applied above the tumour all pulsation ceased. The tumour reached above Poupart's ligament. He was then ordered to bed, and put on a mild diet. Pressure was applied in various forms, but failed.

The patient was placed under the influence of chloroform on the 25th of August, 1869. An incision was begun about two lines above, and an inch within, the anterior superior spinous process of the ilium, and carried downwards. The incision terminated at an inch above the level of the spine of the pubes, and an inch and a half on its external aspect. A cautious dissection was made until the vessel was reached, the peritoneum being carefully kept aside by means of two copper spatulæ. The vessel was secured in the usual way, and all pulsation ceased immediately after the application of the ligature. The wound was drawn together by six sutures. The usual caution was taken in carefully wrapping the whole limb in cotton-wool and flannel. In an hour after the operation the limb fell remarkably in temperature, and he complained of a great deal of pain. Bottles of warm water were applied, and an opiate administered. At 10 P.M. heat was perfectly restored throughout the limb from one extremity to the other, and the pain diminished.

The patient made an excellent recovery, which was only interrupted by a slight attack of cutaneous erysipelas round the wound, which commenced two days after the operation. The ligature did not come away till the 26th of September, thirty-two days after the operation. On October 12th the wound had quite healed up. The man is now in perfect health.

Popliteal Aneurism; ligature of the superficial femoral.—W. P——, aged forty-six, a wool-sorter by trade, had felt pain around the right knee-joint, but did not observe any swelling for some months after. The pain became excessive, which compelled him to call in his usual medical attendant, the late Dr. Burke, who on making his first visit discovered that he had a large popliteal aneurism. The patient was ordered to bed, placed under medical treatment, and pressure was applied in various ways, but failed. On September 1st, 1869, after consultation, immediate operation was recommended, to which, however, the patient did not at once accede. After a few days' consideration he consented, and the patient was put under chloroform on September 5th, 1869, and the superficial femoral tied in Scarpa's space. The ligature came away on the eighteenth day after the operation, and the patient made a rapid recovery.

Traumatic Aneurism of the Radial Artery.—W. S——, aged thirty-two, a blacksmith, was admitted into the Bradford Infirmary with a large traumatic aneurism of the left radial artery. About twelve months before his admission a joiner's chisel was thrown at him, which caused a deep wound about two inches in extent in the middle of the forearm, which, according to his own account, bled profusely. A medical man was sent for, and no attempt was made to tie the bleeding points, but pressure was applied; and from that time the tumour began to show itself gradually, until it got to so large a size that it was a very great hindrance to him in his trade. The tumour was larger than a fœtal head, and on applying the stethoscope a slight bruit was heard and a feeble pulsation was also detected.

On September 12th, 1869, chloroform was administered and the brachial artery was tied just opposite the insertion of the coraco-brachialis muscle. After applying the ligature there was still pulsation in the tumour, which was then laid freely open and the clots turned out. An attempt was then made to tie the bleeding points, but failed, on account of the rotten condition of the tissues. After careful examination, a high division of the brachial was found, the terminal bifurcation of that artery being about four inches above its normal position. A second ligature was then applied and all hæmorrhage ceased. The patient made a rapid recovery, the ligature coming away on the twelfth day after the operation.

GENERAL HOSPITAL, VIENNA.

THE BRUIT DU DIABLE.

Abstract of a Clinical Lecture by Dr. A. DUCHEK, *Professor of Medicine in the University of Vienna.*

THERE are to be found murmurs in the heart and the veins which do not take their origin in organic changes of the heart and the vessels—as, for instance, with men and animals exhausted by loss of blood and attendant anæmia. In the same degree as the loss of blood and the paleness of the skin proceed, these murmurs appear in the heart and the veins of the throat. If we touch, in severe cases, the vena jugularis with the finger, we perceive a continued vibration, like that of a string. This vibration is not interrupted, as we observe it in arteries, but continued. On pressure on the upper part of the vena jugularis, both the perception of the vibration and the acoustic evidence of a murmur disappear, proving it to be merely venous.

The formation of the sounds in the heart is influenced by two agents: the condition of the valves of the heart and the vessels on the one hand, and by the pressure produced by the blood-stream upon them on the other. As we have, in such cases of anæmia, no symptoms permitting us to diagnose changes in the vibrating mediums, we are induced to seek the origin in the cause itself which produces vibration—namely, the pressure of the blood. In disorders attended by these murmurs (as anæmia, chlorosis, loss of blood), the propulsive power of the heart is unchanged, though its contractions are more numerous, while the blood, either in its quantity or quality, is lessened, and consequently the pressure exercised by it in the circulation is diminished too, so that the impulse given by the blood-column is not sufficient to develop in the valves or the arterial walls the amount of tension necessary for the formation of the sound, which under normal circumstances makes its appearance in these vibrating mediums, but in these cases is lowered into the acoustic impression of a murmur.

In this way we explain the murmur in the heart. It is more difficult to find its cause in the vena jugularis. Some have attributed it to the arteries; but this is contradicted by its disappearance on pressure on the jugular vein, and by its continuity. This bruit is modified by two causes. It grows stronger at regular intervals, corresponding to the pulse, being strengthened by the sound of the carotids; we call these simply moments of reinforcement. The second cause is the respiration, which, when accelerated, influences the murmur.

What is the origin of this murmur? In the heart we explain all sounds and murmurs by vibrating membranes. We shall not suppose that in the veins a whirl of blood is their cause, nor the pushing of the blood against a narrow entrance. The jugular vein behind the insertion of the sterno-cleido-mastoideus is wider than elsewhere, forming the bulbus. Beneath this bulbus are valves in the narrowest part of the vein. These valves have a most important influence upon the whole circulation of blood. The pressure in the thorax being too high, they approach one another, and in this way oppose the further entrance of blood into the thorax. The part above them must be, consequently, dilated, as we remark it in cases of stagnation in the heart, the jugular vein being distended, and the jugulum growing gradually more shallow. The impulse of the blood makes these valvulæ vibrate, and causes the murmur. When the blood flows slowly the impulse is too weak, and no murmur is to be heard, just as a slight touch is not sufficient to make a string vibrate audibly. The murmur arises when the valvulæ are half opened and put into vibration by a sufficient rush of blood. Another peculiarity is to be mentioned. The bulbus is attached to the clavicula behind the articulatio sterno-clavicularis; and thus being stretched out, it facilitates the flow of the blood. If the pressure in the thorax increases, by valvular failures, emphysema of the lungs, &c., the stream flows slowly, and therefore we do not find these murmurs attending disorders of the intra-thoracic organs, and hence the general view that this bruit excludes insufficiency of the valvula mitralis. Another consequence of this fact is, that these murmurs are not to be heard in persons affected by anæmia when they become the subjects of pneumonia, or exudative pleurisy, and that they reappear at recovery. The two necessary requisites, then, are a speedy circulation of blood and a normal pressure of the blood in the thorax. This view affords us also an explanation of the murmur growing stronger when the respiration is more hurried. The thorax being powerfully dilated, the blood rushes in strong streams towards it, strengthening the acoustic impression. When the respiration is impeded, when it must be forced, the circulation loses the necessary quickness, and the vibration of the valvulæ becomes inaudible.

These murmurs are very rarely to be found along with mechanical changes in the heart. They accompany similar murmurs at the ostia, which are always systolic, never diastolic. They may be perhaps diastolic, but only in the most severe disorders of this kind, where it is impossible to distinguish whether there is only one continued murmur or whether the systolic and diastolic murmur meet and run into one another.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JAN. 23RD, 1872.

J. A. BOSTOCK, C.B., VICE-PRESIDENT, IN THE CHAIR.

ON THE EXCITABILITY OF DIFFERENT PARTS OF THE TRUNK OF A SPINAL NERVE, WITH A "SCHEMA OF THE CIRCULATION."

BY WILLIAM RUTHERFORD, M.D., F.R.S.E.,

PROFESSOR OF PHYSIOLOGY AT KING'S COLLEGE, LONDON.

IN this communication Professor Pflüger's experiments regarding the excitability of different parts of the trunks of the motor fibres of spinal nerves are described, and his "avalanche hypothesis" founded thereon criticised. The faulty character of his experiments is pointed out, and those performed by the author are narrated. The latter conclusively show that Pflüger's explanation of his experiments is untenable; that the avalanche hypothesis regarding the transmission of nerve force has no fact in its support; and that the excitability of both the *afferent* and *efferent* fibres of a spinal nerve is inversely as the distance from the spinal cord. The possible explanations of this singular and novel fact are considered, and the bearing of this discovery upon our ideas regarding the nature of the influence which travels along a nerve is indicated.

Mr. HENRY POWER always considered Pflüger's hypothesis fraught with difficulty—that force should gain by being expended. Did Dr. Rutherford think the increased excitability due to the thinness of the coats of the medullated fibres near the spinal cord?

Dr. RUTHERFORD was glad of the suggestion; meantime, he had not made up his mind.

Dr. RADCLIFFE was glad to hear a refutation of Pflüger's views. Did not the fact that nerves die centripetally explain something?

Dr. RUTHERFORD sometimes cut the nerve at the distant electrodes, when the cutting for a time caused the excitability to increase, so as almost to equal that of the other and cerebral end.

Mr. POWER asked if Dr. Rutherford had seen Schiff's experiments, which went to show that the excitability of the pneumogastric was greatest near the brain?

Dr. RUTHERFORD had done so. They confirmed his view.

PROPOSED FORMS OF SURGICAL RETURNS AND REPORTS TO BE USED IN WAR.

BY DEPUTY INSPECTOR-GENERAL C. A. GORDON, M.D., C.B.

(*Communicated by* BERKELEY HILL, F.R.C.S.)

The object of the proposed forms is to present information regarding wounds received in battle and operations performed in their treatment in a manner calculated to facilitate comparison regarding their severity, results, prevalence, and fatality of complications usually met with, and also to arrange observations upon subjects of surgical interest in a definite manner.

Table No. 1. In this form wounds are arranged (*a*) according to their position, (*b*) according to severity, and (*c*) the deep parts of importance implicated. The different columns into which the form is divided indicate the circumstances under which wounded have been admitted, the several conditions in which they are discharged, and, in regard to those who die, the causes of death, distinguishing particularly the cases of mortality by *hospital* diseases and complications.

Table 2. This form is intended to contain a record of the various operations performed. The operations are arranged according to their kind, as—(*a*) amputations, (*b*) excisions, (*c*) resections, (*d*) ligatures, (*e*) trephining, (*f*) extractions, (*g*) other operations. The first four classes are severally arranged according to region or part of the body, and in regard to each case the return will show the manner in which it was admitted, period of operation, the circumstances under which the patient is discharged, and in cases of death, the precise cause, as far as practicable, of the fatal termination.

Form 3, or Report. This presents different "headings" under which information may be arranged for the purpose of being subsequently collected and condensed. These headings include the following points—viz. (1) those referring to form 1; (2) those referring to form 2; (3) conditions of individual hospitals; (4) as to certain diseases that may appear among the wounded; (5) as to the important question of hæmorrhages; (6) as to the relative success of primary and secondary operations; (7) as to other surgical points of interest, some of which are enumerated; (8) as to the character of wounds by new projectiles and other arms; and (9) such other general subjects as are not included under any other of the above heads.

The CHAIRMAN thought that, as an army surgeon, he ought to tender his thanks to Dr. Gordon.

Mr. WYATT said that the more succinct the form of notes to be taken in actual campaign, the more likely were they to be accurate. One would hardly be able to note all the points suggested by Dr. Gordon under such circumstances. He had drawn up a form which was approved of in the operations at Paris. It was important to have a form which would be available for use afterwards. In all the civil hospitals of Paris one definite form was used. It would be well could we have a similar one adopted in London.

Dr. CHARLES MAYO agreed with Mr. Wyatt as to the difficulties in the way of filling up these forms. Field statistics were very uncertain, especially when the army was constantly moving on. Then it would be impossible to fill them up, however desirable to do so.

Dr. RUTHERFORD next demonstrated the uses of a New Schema of the Circulation, and the meeting adjourned.

MEDICAL SOCIETY OF LONDON.

MONDAY, JAN. 15TH, 1872.

DR. ANDREW CLARK, PRESIDENT, IN THE CHAIR.

Mr. WEEDEN COOKE narrated the particulars of the case of a young lady, aged twelve, who had suffered from a Tumour of the Tongue ever since she was two years old. The tumour appeared after the measles, and had, when it was removed a few days ago, attained the size of a large nut. It was soft and without a capsule, and seemed to be an exuberant growth of the normal tissue of the tongue. He had treated a case of tumour of the tongue some years back by means of a ligature, but the strings took fourteen days to come away, and although disinfectants were used, the discharge was very offensive. In the present instance chloroform was given, the patient gagged, the tongue drawn forward by means of a ligature, and the tumour removed by the knife. The ligature broke away, and the bleeding was excessive, coming principally from three vessels; the actual cautery at once stopped the bleeding, and the general bleeding was stopped by iced water. The wound of the tongue has almost absolutely healed.

A communication was read from Mr. Richard Eager, of Guildford, to Dr. Routh, on the Contagiousness of Typhoid Fever. The writer narrates a series of cases which occurred a few years ago, that seemed to him to prove the contagiousness of the fever in question.

The announcement from the chair that a special meeting of the Council had been called, and a sub-committee chosen to draw up an address of congratulation to her Majesty the Queen, on the recovery of H.R.H. the Prince of Wales, was received with much applause.

Dr. JOHN CHAPMAN then read a paper on the Pathology and Treatment of Neuralgia and its Kindred Disorders. He arranged the whole class of neuralgias into six groups, as follows:—1st. Those cases in which there is apparently no complication of any kind, and in which the pain, having no obvious cause, is referred to some part of the periphery, seemingly healthy. 2nd. Those cases which, though marked by the absence of any morbid phenomena at the seat of pain, yet have an obvious or assignable eccentric cause, the pain being referred either to the seat of cause, or to some part of the periphery more or less remote from it. 3rd. Cases distinguished by morbid phenomena of the voluntary muscular system, chiefly, but not necessarily at the seat of pain. These phenomena consist of cramps or tonic spasms, twitches, jerks, and other convulsive movements. 4th. Cases presenting, besides the pain and disorderly muscular action just mentioned, some one or more of the following phenomena: pallor, coldness, and anæsthesia of the neuralgic area, partial paralysis and atrophy of the affected nerve, amaurosis, paralysis of various cerebral nerves, dilatation of the pupils, partial atrophy and enfeeblement of voluntary muscles, constipation of the bowels, deficient menstruation, certain indolent ulcers to which the epithets "neuralgic and cold" have been applied. 5th. Cases which, while presenting any of the phenomena characteristic of each of the preceding groups, are distinguished by symptoms of excessive secretion, the glands or glandular surfaces, which are excessively active, being generally seated within or near the region of pain. These symptoms comprise lachrymation, excessive nasal secretion, ptyalism, bronchorrhœa, nervous flatulence, diarrhœa, excessive secretion of urine, seminal emissions, leucorrhœa, and unilateral sweating or sweating over circumscribed areas. 6th. Cases which, while presenting some of the characteristics already described, also present symptoms of local inflammation, which manifests itself in various shapes, the peculiarity of the phenomenon in each case being dependent on the special character of the structure in which it appears. Dr. Chapman affirmed as a general therapeutical principle that those agents which can be used with the greatest effect in order to excite a sedative influence on the nervous centres, the hyperæmia of which gives rise to the pain and complications in question, are precisely those which are likely to exert the greatest remedial power. He believes that the best method of cure consists in modifying the temperature of the spinal region by the application of heat and cold. The paper concluded by a general explanation how to apply both cold and heat along the different parts of the spine, in order to produce the specifically sedative effects intended in each case, by warnings to avoid certain dangers which are incident to the practice of the method by those who, without the exercise of adequate caution and study of the principles which underlie it, presume to use it as if it were a mere empirical nostrum, and by a brief discussion of several cases exemplifying in a signal manner the efficacy of the method in question in treating neuralgia, as well as its kindred disorders, and especially in inducing sleep.

The PRESIDENT thanked Dr. Chapman for his interesting and ingenious paper, and in the discussion which followed Dr. Thorowgood, Dr. Douglas Powell, Mr. McDonagh, and Mr. Brudenell Carter took part.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 16TH, 1872.

MR. JOHN HILTON, F.R.S., PRESIDENT, IN THE CHAIR.

A report by Dr. Green and Dr. Burdon Sanderson, on Mr. Norton's case of a Growth in the Larynx, was read, which stated that the specimen submitted to them was "a typical specimen of epithelioma."

A report from Dr. Bristowe was also read, on the supposed occurrence of a green pea in the lachrymal sac, which stated that the greenish mass submitted to him was clearly not a pea or any other kind of seed. It consisted of nuclei and granular matter, with dead bacteria. The nuclei had probably been derived from pus-cells and epithelium. There was no evidence of vegetable forms, and iodine failed to give a blue colour, showing the absence of starch.

A third report by Drs. Theodore Williams and Douglas Powell, on Mr. Arnott's case of "strumous" masses occurring in the brain and testicle of the same subject, stated that, after a careful microscopic examination, and in the absence of any evidence of syphilis or of miliary tubercles in any of the organs of the deceased, it was probably correct to regard the masses in question as of a scrofulous nature.

A fourth report, by Drs. Greenhow and Cayley, on Dr. Reginald Southey's case of supra-renal disease, stated that the specimen submitted to them possessed all the characteristics of true Addison's disease.

Dr. GREENHOW exhibited a Tumour which had been found "free" in the peritoneal cavity of a female patient who had died in the Middlesex Hospital. The tumour was ovoid in shape, rather bigger than a hen's egg, smooth and polished on the surface as a billiard ball, and of a drab colour. There was no stalk or hilus to show that it had ever been attached anywhere. When cut open it showed an arrangement of concentric laminæ, and under the microscope it appeared to be composed simply of fibres running nearly parallel, and occasionally branching and dividing. No vessels were anywhere to be seen, and in the centre was a small calcareous nucleus. The tumour had been found in a sort of pouch, which it had apparently formed for itself close to the cardiac end of the stomach, from which, when the abdomen was opened, it "shelled out." Two other similar but smaller tumours were found, one of which was attached to the omentum and contained no nucleus. A similar tumour had been exhibited by Mr. Shaw, and described in the Sixth Volume of the Society's Transactions, which had been removed by him from a hernial sac, whither it had travelled and prevented the reduction of the hernia. Mr. Shaw cut down upon the tumour, and "it rolled down between the patient's legs like a billiard ball."

Mr. JOHN WOOD had (in conjunction with Dr. Wilks) examined Mr. Shaw's specimen. They were of opinion that in many instances these tumours owed their origin to the appendices epiploicæ, which, becoming detached, and undergoing calcareous degeneration, formed the nuclei. With regard to the subsequent development, there was a difference of opinion between them. Dr. Wilks thought it was due to the gradual growth of fibrous tissue around the nucleus, but Mr. Wood was of opinion that layers of fibrin were simply deposited around the nucleus from the peritoneal fluid. He had met with two such tumours occurring in hernial sacs. He had diagnosed their nature, and managed to reduce them. Although these bodies were quite free in the peritoneum, they nevertheless set up no

peritonitis. He was convinced in his own mind that his theory as to their origin and growth was correct.

Dr. CAYLEY remarked that the tumour in question was covered with a layer of peritoneum, which could be peeled off. It could not, therefore, have been formed free in the peritoneal cavity. The laminæ were composed of fibrous tissue.

Mr. GAY had found smooth laminated tumours in the veins just like the one before the Society. The tumours to which he alluded were quite distinct from phleboliths.

Mr. HULKE considered these tumours to be subperitoneal formations. He agreed with Virchow's theory, that they were formed from the appendices, the stalks of which drag out till the vessels are obliterated and the appendices drop off.

Mr. ARNOTT agreed with Mr. Wood, because neither nuclei nor vessels were visible in the fibrous tissue.

Dr. FAGGE exhibited for Dr. Kitchener, of Chippenham, a mass which was supposed to be the kidney of a fœtal calf which had escaped in utero, and had obstructed labour when the cow aborted. The real nature was, however, doubtful.

Mr. LAWSON narrated the case of a patient whose thigh had been amputated in 1867 for a large blood-cyst occurring close to the popliteal space. The patient returned in June, 1871, with pain in the stump, which was followed by the development of another blood-cyst at its extremity. Death occurred somewhat suddenly with symptoms of dyspnœa. After death cancer was found invading the right lung, and a blood-cyst was found in the stump containing cancer-cells in its interior.

Mr. LAWSON also exhibited a tumour growing from the choroid coat of the eye. The patient had had symptoms of glaucoma. Iridectomy had done no good, and the eye was ultimately removed. The specimen was mounted in glycerine jelly, to which a little creasote had been added.

Dr. LEARED showed some Renal Calculi formed of cystic oxide.

Mr. NORTON exhibited a growth from the femur, for which the patient's thigh had been amputated. The tumour was encapsuled, and did not invade the substance of the bone. Microscopically it resembled enchondroma. It was referred to the Morbid Growths Committee.

Dr. GREENHOW exhibited some Lungs containing several large cavities, each of which was quite smooth in the interior and lined with false membranes, indicating that the condition which had given rise to them had been completely arrested. The patient died of capillary bronchitis. At the same time Dr. Greenhow exhibited a lung, taken from a patient who had suffered from repeated attacks of pleurisy, in which hardly any lung-tissue, properly so-called, remained. The lung was contracted, tough, and airless.

Dr. THOROWGOOD exhibited a Salivary Calculus weighing ninety-three and a half grains, composed of phosphate of lime.

Reviews and Notices of Books.

A Report of Surgical Cases treated in the Army of the United States from 1865 *to* 1871. Circular No. 3, War Department, Surgeon-General's Office, Washington. Aug. 17th, 1871. pp. 296. Washington: Government Printing-office.

WE have on several occasions had the pleasure of noticing the valuable contributions to medicine and surgery emanating from the Medical Department of the United States, and we have now before us an interesting Report of Surgical Cases treated in the Army of the United States from 1865 to 1871. This report is compiled by Assistant-surgeon George A. Otis, to whose labours the profession was indebted for the extremely valuable reports on Amputation of the Hip-joint and on Excision of the Head of the Femur which appeared in 1867 and 1869 respectively. The report extends to close upon 300 pages, and, like its predecessors, is admirably illustrated with wood engravings and lithographic drawings.

Although the five years over which the report extends have been years of peace, as regards any extended hostilities, the Indians appear to maintain a tolerably constant *guerilla* warfare, and a number of injuries were sustained by soldiers accidentally, or in brawls, or in attempts to evade or escape from arrest. Thus, no fewer than 387 cases of gunshot injury are reported, including 75 of the chest, 37 of the abdomen, and 38 of the skull. In connexion with these last injuries it is noticed that, "Of the many Indian crania contributed to the Army Medical Museum during the last five years, not a few presented examples of gunshot perforations of the skull, or of depressed or penetrating gunshot fractures. It is very painful to observe that these crania, in many instances, present numerous cleanly-cut perforations from small projectiles at short range, evidently inflicted after death, and that this senseless vengeance was often wreaked upon the corpses of women and children."

Of simple and compound fracture 1599 cases, and 625 cases of luxation, were reported during the period of five years, but details of selected cases only are given.

Arrow-wounds are practically unknown to British surgeons now-a-days, but cause a large number of casualties in the American army. The subject is introduced with a brief historical and antiquarian essay on wounds by arrows, and reference is made to a recent paper by Dr. Bill, in the *American Journal of the Medical Sciences*, upon the rapidity with which the American Indians discharge their arrows. An interesting case is given of an iron arrow-head lodged in the chest of a soldier for three years, which was then successfully extracted by Dr. J. H. Peabody. Another case of extraction of an arrow-head, 1¾ in. long and ¾ in. in breadth, from the interior of the skull and brain a month after the infliction of the injury, is reported by Assistant-surgeon Smart, but with an unfavourable result on the twenty-third day after the operation. A sketch is given of a Mexican skull with an arrow lodged in its brow, through which it had reached the brain, and one showing a clean-cut wound in the squamous portion of the temporal bone; and this clean cutting of the two plates of the skull appears to be a marked characteristic of arrow-wounds, distinguishing them from bayonet or sword thrusts, or gunshot injuries.

The author remarks on the subject of arrow-wounds: "The force with which arrows are projected by the Indians is so great that it has been estimated that the initial velocity of the missile nearly equals that of a musket-ball. At a short distance an arrow will perforate the larger bones without comminuting them, or causing a slight fissure only, resembling the effect of a pistol-ball fired through a pane of glass a few yards off."

The extraction of barbed arrows is by no means easy. Dr. Bill has suggested a wire-snare slipped along the shaft and over the barb of the arrow; or, when the arrow is fixed in a bone, by using a wire-twister to fix a loop upon it as explained in the diagrams. The ancient stone arrow-heads are still used by many of the North American Indians; but the editor doubts the stories of poisoned arrows, many experiments he has made with them on the lower animals, giving only negative results.

The list of amputations gives 251 cases: 164 of the upper, 86 of the lower, and 1 of both upper and both lower extremities. Of the whole number 25 resulted fatally. 63 of the major amputations were primary, 27 intermediary, and 25 secondary. The death-rate in these classes was almost uniform, being for the primary cases 22·2, intermediary 22·2, secondary 20. The instance of amputation of all four limbs was for frost-bite, and the patient recovered. A case of successful reamputation at the hip-joint is recorded by Dr. Otis, the compiler.

Twenty-five cases of excision are reported, including

trephining (!). There were 16 cases in the upper and 8 in the lower extremities, including four of the head of the femur, which, together with cases occurring before and during the American Civil War, make an aggregate of 87 excisions of the hip by the American army surgeons, with 8 recoveries, and a mortality of 91·9 per cent.

Among the ligations of vessels, we note three of the external iliac and one of the abdominal aorta, by Dr. McGuire, of Richmond. The case is remarkable from the fact of the aneurism giving way during the operation, and before the ligature could be tied. The patient, a negro, survived the operation twelve hours.

The operations on the urino-genital organs include a successful case of supra-pubic puncture of the bladder, and nine cases of lithotomy, several of which are very remarkable. One of these is a gunshot wound in the bladder, resulting in the formation of a large calculus around a fragment of bone, thus resembling in many respects a case which occurred in Sir H. Thompson's practice some years back. Another calculus had for its nucleus an iron ball, which was encrusted principally on one side; and another case of musket-ball extracted by lithotomy five years after the injury is also given. Most remarkable of all, however, is the calculus extracted from the bladder of an Indian chief, who had been wounded through the buttock seven years before in Indian warfare. Here the iron arrow-head formed the nucleus of a stone weighing nineteen drachms.

The report concludes with an abstract of a paper by Dr. McGill on osteo-plastic amputation, in which he recommends the preservation of a covering of periosteum for the end of the divided bone.

In taking leave of the painstaking and able editor, Assistant-Surgeon G. A. Otis, whose labours his brethren in arms and his profession at large cannot fail to appreciate, we cannot but regret that our own Army Medical Department does not compile some work of the kind, which would be of general professional interest.

Traité des Maladies du Fond de l'Œil, et Atlas d'Ophthalmoscopie. Par L. DE WECKER et E. DE JAEGER.
Treatise on the Diseases of the Fundus of the Eye, and Atlas of Ophthalmoscopy. By L. DE WECKER and E. DE JAEGER. Large 8vo. pp. 439. With 89 Woodcuts in the Text, and 29 Chromo-lithographic Plates, containing 128 Figures. Paris and Vienna. 1871.

DR. EDOUARD DE JAEGER had the misfortune to be somewhat in advance of his time, and to publish an ophthalmoscopic Atlas that, when it first appeared, was too faithful for the general knowledge of its day. At that time huge pictures and bold colouring were infinitely attractive to the great number of practitioners who had not themselves seen the appearances which the ophthalmoscope reveals; and the sober tints and fine distinctions of the living tissues were considered somewhat tame upon paper. The increase of knowledge, however, wrought by degrees a very sensible change in professional opinion, and the exquisite truthfulness of Jaeger's pictures has long been admitted by those who were most conversant with the reality. Prior to the Franco-German war Dr. de Wecker had conceived, and had partly executed, the idea of reproducing Jaeger's plates, with a French version of the descriptive text, and of adding a systematic treatise on the morbid conditions rendered visible by the ophthalmoscope. After the peace, the interrupted labour was carried on to a fortunate conclusion, of which the volume before us is the result and evidence.

It opens with a brief preface by Dr. de Wecker, followed by another by Dr. de Jaeger, in which he criticises with great severity, and in some cases with great justice, the pictures of the fundus oculi that have been published by Martin, Bouchut, Fano, Bader, and Liebreich—a list to which many other offenders might with great ease have been added,—and bears testimony to the greater accuracy of those of Ruete, and also of Professor Stellwag von Carion, whose claim to a great place among the ophthalmologists of the day has never been sufficiently recognised in this country. Dr. de Jaeger adds that, in criticising the pictures of others, he by no means claims perfection for his own, and speaks with modesty of his want of "*un véritable talent de dessinateur.*" He says that he has endeavoured, by the devotion of time to the work, to make amends for the want of artistic skill which he deplores, but of which others certainly would see only small evidence; and he also points out the necessary imperfections attendant upon the chromo-lithographic process.

The first 200 pages of the work are from the pen of Dr. de Wecker; and in them he has treated, with his customary felicity, the chief morbid states of the eye for which the ophthalmoscope is employed. The first chapter, which is on the use of the ophthalmoscope as an optometer, is a translation from Mauthner's "Lehrbuch der Ophthalmoscopie"; and the subsequent ones, which treat successively of the refracting media, of the optic nerve, of the retina, and of the choroid, are original. In them Dr. de Wecker has not only written from his own large experience, but has also brought under contribution nearly everything that has been made out by others; and he has produced a work that is at once compendious in bulk and masterly in execution.

The letterpress of the Atlas consists of a full relation of the symptoms and condition of all the patients from whom the 128 plates have been taken, and of a description of the appearances figured; so that the plates and the histories supplement each other. Of the plates it would be difficult to speak too highly. They are precise representations of changes many of which fall under the daily observation of the ophthalmic surgeon, and which are rendered with a delicacy and fidelity beyond all praise. The book is one which every student of ophthalmoscopy should procure and master, especially by careful comparison of the narratives with the illustrations.

THERAPEUTIC TRADITIONS.

No. II.—HEAT.

THE subject of the present paper is not the employment of heat as a remedy, but the traditional, as compared with the scientific, mode of regarding and treating the condition of excessive manifestation of heat within the body.

Great indeed is the gulf between the old dogmatic view of abnormal bodily temperatures and that which scientific induction teaches us; but we much question whether the profession as a whole has fully grasped the extent and significance of the change in our philosophy which has been brought about by modern discoveries. What was the general nature of the view entertained during the first forty years of this century?—for at present we need go no further back. We shall not be wrong in stating that that view was the same which had been entertained in quite ancient times. It assumed that the fever-heat was produced by, and was in direct proportion to, the vigour with which the *vis medicatrix* strove against the disease and endeavoured to "eliminate" it from the organism. Two therapeutic indications were supposed to be afforded by this fact: in the first place, it was necessary to take as much as possible of the fatigue of the eliminating struggle off Nature's hands by the artificial use of evacuant remedies of various kinds; in the second place, it was also necessary to directly control the struggles of Nature, lest she should injure herself in the fight with disease. The latter indi-

cation was especially given by the "sthenic" character of disease, and the especial sign of that sthenic character was the excessive development of heat. Such was the main dogma underlying the general mass of fever-treatment down to the epoch when at length the discoveries of physiological chemistry began to produce a distinct impression upon medical practice. It came in direct and unbroken tradition from the dawn of European medicine; it had been impartially held by the Hippocratic, the Galenic, and the Methodistic schools; and had survived all the conflicts between solidism and humoralism, and between the doctrines of Brown, of Broussais, and of the contra-stimulant school, at the early part of the nineteenth century. We would even venture to affirm that Sir John Forbes, enlightened reformer as he was, never shook himself completely free from the influence of the dogma; for it is plain that no man could write, as he did, about the "physician within the skin," who did not retain something more than a merely figurative allegiance to the metaphysical idea of the *vis medicatrix naturæ*. The next stage in the declension of the dogma is one in which it no longer really survives; but the phraseology formerly appropriated to its expression is used in a merely figurative, but somewhat misleading, way by writers who have not completely emancipated themselves from the verbal formulas of the older doctrine. Thus, in certain well-known works the writers, though strongly rejecting all vitalistic explanation of disease, incautiously use the word "Nature" in a way that might be supposed to refer to some power resident in, and peculiar to, the organism, though in reality they only refer to the combined influences of the whole material structure and *surroundings* of the sick organism. No doubt even this purely figurative form of speech is undesirable, as lending some show of support to the old metaphysical view of vital reaction against disease.

An entirely new order of conceptions has been necessitated by modern discoveries, dating mainly from the more accurate researches on the relations of tissue-waste to the production of heat, and from the improved knowledge respecting the heat-regulating functions of the nervous system. The main facts brought into notice are these:—1. The increased temperature of fever is known to correspond to increased tissue-waste—increased, moreover, in a new and dangerous *direction*. Whereas, namely, the nitrogen-containing tissues are hardly consumed at all in circumstances of health, the febrile state involves a large destruction of them, and this at a time when, from the state of appetite and primary digestion, scarcely any repairing supplies of nitrogenous food can be taken up into the system. Every additional degree of fever heat implies so much additional destruction of the most important organs of the body, including the heart and the nervous centres. For the moment we may be content to suspend the discussion as to the degree in which the abnormal heat is consequence or cause of the graver phenomena that occur in fever. The patent fact is, that a certain amount of damage to the most important vital organs is *necessarily coincident* with a certain elevation of temperature. 2. But, besides this, it is now quite certain that heat, *per se*, when above a certain height, is directly destructive to the life of the organs. If animals be immersed in an atmosphere of a certain high temperature, they either die suddenly from a narcotic influence of super-heated blood upon the nervous centres of organic life, or, if the process be more gradual and protracted, they succumb to a process of acute fatty degeneration of the heart and of the nervous centres, which, as Liebermeister has pointed out, really differs in nothing from the degenerations caused by the poisonous action of phosphorus. 3. For the old idea, that sensible heat of skin with redness of the face in itself implies strength of constitution, no authority remains; the obvious fact being that surface-redness means vaso-motor paralysis, and that high temperature in partially protected regions like the axilla means simple tissue-waste, as already described. The only thing which might remain unchanged is the belief that extreme pallor, and especially extreme coldness of the surface, under circumstances of general pyrexia, are signs of really severe depression. No doubt that is so, but the reason for so considering it is that this pallor and coldness of skin, under circumstances where there is necessarily the minimum of contractile resistance in the small arteries, implies that the heart has too little force to pump the blood to the surface in any considerable quantities. But this is only a phenomenon of extreme cases.

Broadly speaking, the indications from excessive heat of body ought now to be interpreted in exactly the opposite sense to that in which they were formerly read: whereas they used to be supposed to show that the case was a sthenic one, we now consider them almost absolute proof that the reserve forces of the body are exceedingly low, and are being constantly and rapidly reduced. Only let us think of that fact, and then remember the fashion in which multitudes of practitioners still talk of "hot skin," "bounding pulse," and so forth, as evidences of strength, and we must admit that the advanced pathology of the day is not merely somewhat ahead, but is altogether out of sight, of a large part of the less observant and less reflecting sections of the profession.

Analytical Records.

THE QUINOVIA OF MESSRS. SOUTHALL, SON, AND DYMOND, OF BIRMINGHAM.

THE inventors of this preparation remark that there is no product from the quinine barks which in a dry and solid form and in diminished bulk represents their collective medicinal constituents in their natural forms and proportions; nor is there any liquid preparation which represents the full medicinal strength which the bark is capable of yielding.

The articles which Messrs. Southall, Son, and Dymond term collectively "quinovias" are stated to contain all the active properties of the yellow and pale barks, especially the quinia and cinchonia, freed from the bulky woody fibre; seven grains of the quinovia flava being equal to about a hundred grains of the bark and four grains of the quinovia pallida: the dose in each case varying from one to eight grains. They form a reddish-brown amorphous powder, much less bitter than sulphate of quinine; they are to a large extent soluble in dilute acid, especially hydrochloric acid, the insoluble colouring and astringent matters being, if requisite, readily removable by filtration.

LIQUOR QUINOVIÆ FLAVÆ AND LIQUOR QUINOVIÆ PALLIDÆ.

Messrs. Southall prepare from the above quinovias two liquid preparations; one ounce of these is equal in medicinal value to four ounces of bark, and the dose named is from four to ten minims.

Messrs. Southall mention, in illustration of the greater effective value which these liquid preparations of bark possess over those of the British Pharmacopœia, that the liquor quinoviæ flavæ, though made with the same proportion of bark as its corresponding preparation, extractum cinchonæ flavæ liquidum (British Pharmacopœia, 1867), contains three times as much quinia as that article, this great difference being accounted for by the imperfect methods of manufacture ordered.

QUINOVIA COCOA AND QUINOVIA CHOCOLATE.

Quinovia, or bark without its woody fibre, is, as already stated, far less bitter than sulphate of quinine; and, when mixed with cocoa or chocolate, this bitterness is very much concealed; so that in these forms the alkaloids can in most cases be administered without difficulty even to children. A shilling packet of cocoa contains fifteen grains of quinovia flava, and a like quantity is present in the shilling box of chocolate.

PATENT EXTRACT FOR PREPARING LIEBIG'S CONCENTRATED MILK.

This extract has a malt-like odour and a very agreeable taste. It consists mainly of grape sugar, obtained by the action of malt on the starch of wheat flour, dextrine, and bicarbonate of potash. The objects of its use are, to enrich milk with sugar; to diminish, by dilution with water, the casein of cow's milk; and to correct acidity by the addition of the alkali. In this way, it is contended, a mixture is obtained very closely resembling human milk. The following is Dr. F. Kussmann's analysis of a sample of the fluid extract: Grape sugar, 27·07; dextrine, 9·59; bicarbonate of potash, 1·82; soluble phosphoric acid, 0·41 (equal to soluble phosphate of lime, 0·79); nitrogen, 2·56; insoluble fixed residue, 0·32 per cent. But the liquid extract was found not to keep well, and its manufacture has been abandoned for the preparation of the solid extract, the subject of the present notice. This extract differs from the former only in the absence of the water, and is therefore in a form of higher concentration, and one which doubtless will keep sound and sweet for long periods. It may be purchased of Liebig's Concentrated Patent Milk Company, 10, Tichborne-street, Regent's Quadrant.

BARNES'S DISINFECTING PERFUME.

This article is a combination of a powerful disinfectant with an agreeable and refreshing perfume. It will prove of value in the sick room, especially for washing the person and for diffusion through the atmosphere of the room by means of a spray-producer. It will also be found a pleasant substitute for aromatic vinegar or the ordinary smelling salts.

BARNES'S NEW EXCIPIENT FOR PILLS.

Mr. Barnes, pharmaceutical chemist, Knightsbridge, in a communication to the Pharmaceutical Society, has recently proposed the use of soluble cream of tartar as a new excipient for making pills of substances not readily brought into the pill state, as sublimated and precipitated sulphur, hydrate of chloral, Dover's powder, chlorate of potash, nitrate of potash, gallic acid, &c. Soluble cream of tartar consists of a solution of bitartrate of potash in biborate of soda, boracic acid; or biborate of soda and tartaric acid. This solution, when evaporated to the consistence of mucilage, is heavy and tenacious. We have examined specimens of a variety of pills admirably prepared with the excipient above described, with the addition, in most cases, of a small quantity of gum tragacanth.

YEATMAN'S YEAST-POWDER.

There can be no question that the use of baking and yeast powders is perfectly legitimate, and that they are valuable articles in rendering unfermented bread and pastry light and consequently more digestible. When used in place of eggs their employment is more questionable.

As in the case of most articles of this kind, there are good and bad varieties, some of these powders especially being adulterated with alum. We have therefore tested Yeatman's Yeast-powder, and find it to be perfectly pure, harmless, and free from alum or any other adulterant. The manufacture of this article has of late been very much improved.

BROMATINE.

The numbers of preparations of cocoa and chocolate are almost endless, and yet for each kind some special quality or excellence is claimed. It must be no easy task to find names for all these several kinds and varieties. We hail with satisfaction, amongst these varieties, an increasing proportion of samples on behalf of which it is urged that they consist only of pure cocoa of the best description. The use of such genuine preparations is much to be preferred, on the score of flavour and general excellence, to the largely diluted mixtures of sugar, starch, and cocoa, so extensively vended, and which we believe have done much to lower cocoa as an article of diet in the estimation of the public.

To the number of these pure preparations of cocoa of superior manufacture and quality must be added Messrs. Dunn and Hewett's Bromatine.

NEW BISCUIT FOR BABIES.

We have received a sample of a new biscuit intended by the inventor, Mr. Ulrich, of Hamburgh, for general use as babies' food. We have carefully examined them, and find them light and good. These biscuits are best used by pounding and soaking in cold water, adding milk in due quantity, and then allowing the whole to boil; when the liquid cools, the food, sweetened at pleasure, can be given through a bottle, or in any other convenient way. Two or three biscuits may be given twice or thrice a day. There is no subject in which more mistakes are made than that of infants' diet. Half the things mothers give their infants are either improper or deficient in nutritive quality. It is, therefore, satisfactory to meet with wholesome and at the same time simple foods like the biscuits under notice.

New Inventions.

GEORGE'S PATENT CALORIGEN.

A GAS-STOVE is either a very great nuisance or a great comfort, and the inventor of a really satisfactory thing of the kind deserves every encouragement. We are glad, therefore, to call attention to "George's Patent Calorigen," which, we believe, the public will find free from the objection of gas-stoves in general. In this the products of combustion appear to be effectually disposed of, while a stream of pure air, conveyed by a pipe from the exterior of the building, passes through a cylinder of heated wrought iron, and is then distributed into the apartment. The cylinder is contained in a well-made outer case, also of wrought iron, and this case contains the gas-burner for heating the cylinder. The products of the gas-combustion are discharged into a pipe communicating with the flue or chimney, the entrance to which is closely fitted with a thin sheet of iron, so as completely to prevent the return of noxious vapours into the room, thus preserving the atmosphere in a state of purity. Mr. Farwig has one of these stoves in constant use, and it seems to work very successfully.

DR. HUSBAND'S CAPILLARY TUBES FOR VACCINE LYMPH.

WE have received a sample of these tubes from the manufacturer, Mr. Robert Somerville, 10, Spring Gardens, Stockbridge, Edinburgh, from whom they can be obtained, and we have no hesitation in strongly recommending them. The tubes are excellent in calibre and strength, most reasonable in price, and well adapted for practical employment. Tubes are, we believe, preferable to points and glasses. By their aid lymph can be preserved fluid and active in different climates for long periods of time. We can endorse the statement that these tubes melt readily in a flame, and are sufficiently strong to prevent their being easily broken in handling.

IN reply to a statement recently made by the Chancellor of the Exchequer, as to the number of students who came to London after passing the medical examination at Edinburgh University, the Council of the Edinburgh University Club in London have published a minute declaring that since 1839, when the degree of Doctor of Medicine was first conferred by the London University, the names of only fourteen Edinburgh medical students have been enrolled in its calendar.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 3, 1872.

THE address of Sir WILLIAM GULL at the Clinical Society was a kind of recreation to the members of that somewhat exacting body. They require of those who read communications to them a certain severity of accuracy and definiteness, a certain bondage to facts, and reasonable inferences from them. And the Society prides itself above all on a *penchant* for practical facts of the clinical and therapeutical order. Sir WILLIAM'S address—genial and entertaining as it was—was distinguished mainly by an absence of all these characteristics. It was vague, airy, and speculative; too nice a diagnosis of disease was rather discouraged; and so also was the notion that we were to expect to cure a great deal of the disease that comes to us to be treated. Many people were born with faulty organisms, the equilibrium of which was easily disturbed. They were incapable of health, in the ordinary sense of the word; and all the tonics of the Pharmacopœia would not give them health. Then Sir WILLIAM displayed a longing for a knowledge of the essence of disease, and a corresponding contempt for mere symptoms. Indulging this mood, he escaped successfully from the clinical region into one of fancy; and we fear that not a few of the more clinical of his hearers lagged sadly behind him as he soared. Small-pox was not a certain eruption accompanied with fever and preceded by pain in the back; these were merely its symptoms. Pneumonia was not hurried breathing preceded by rigor, with the accompaniments of pyrexia and certain physical signs. Scarlatina was not to be described as a disease with an eruption, a sore-throat, high temperature, and very infectious. Sir WILLIAM wanted to know what tissues were *first* infected; and expressed his belief that the blood was not primarily at fault, and that if a man consisted only of blood he could not have scarlet fever. Sir WILLIAM did not tell his hearers what small-pox was, nor what pneumonia was. In fact, it was a part of his mood to eschew definitions, and he spoke of them as if they included everything but the essence of the thing to be defined; and it was only essences about which he seemed to care on that particular night. From all this followed, not unnaturally, certain contemptuous remarks about the treatment that contemplated the relief of mere symptoms; and even the theory that takes the kindliest views of symptoms and credits them with a positive curative intention, as if they were human beings or something higher, came in for no mercy at the hands of the distinguished Baronet. The eliminative theory of the evacuations of cholera was more than disclaimed; so far from believing that nature meant by them to cure the patient, Sir WILLIAM adopted Dr. HAUGHTON'S untheological view, and charged nature with meaning to put the patient into his coffin. The President enchained the surgical half of the Society by promising them new regions of practice when we shall have discovered more about the dispensableness of certain parts of our organisation and their peculiar liability to disease—such as tonsils, which Sir WILLIAM thinks he would leave out of any man that he should make. We are well aware that both medical and surgical practitioners find occupation in the abnormal states of the tonsils; but whether Sir WILLIAM'S man without tonsils will feel comfortable or not is another matter. We should expect him to apply for medical assistance much more frequently than men with tonsils do.

As we have said, Sir WILLIAM clearly designed recreation to himself and the Society over whose careful labours he ably presides. His duller hearers, whose imagination was not equal to the conception of a man consisting only of blood or without tonsils, doubtless expected him to talk of diseases, of the great success with which they have been differentiated, and of the valuable results which follow a treatment directed unavoidably to a large extent against symptoms. They may have hoped that so eminent a physician would have dropped a few words that might have sharpened their diagnostic faculties or helped them in their therapeutical struggle with disease. All this would have been too much like ordinary practice and the common habit of the Society. As it was, Sir WILLIAM threw physic to the dogs, and showed his audience how possible it is for a physician to think of disease as only another form of health. The duller hearers to whom we have referred would doubtless fail to appreciate many of Sir WILLIAM'S speculations. Tethered to the bedside, they would demand an answer to urgent therapeutical questions. They would argue, perhaps, thus: if the physician throws physic to the dogs, the public will ask, what, then, is the use of the physician? But all this is to be logical and practical; and for once, as we have said, Sir WILLIAM meant to be neither the one nor the other, but only to speculate about nature, and wonder whether a man made of blood only could have the scarlet fever. We see in the President's address a kind compliment to the Clinical Society. He has evidently noticed its laborious investigations into actual disease, and he treats it to a series of speculations which bear the same relation to medical knowledge as his man made of blood would bear to the ordinary compound of flesh and blood.

DR. GUY has rendered a great service in pointing out the necessity of separating lunacy from those other questions with which it is now so unfortunately mixed up. At present every department of the Government, and it may almost be said every class of society, has its own method of determining this important question; and the Government would no doubt obtain very general support if it would institute a simple, inexpensive, and well-constituted tribunal to which may be referred the question of personal responsibility, whether it be in relation to destitution, to personal and social safety, to the administration of property, or to the commission of crime. Under the present anomalous system, there are no less than four or perhaps five authorities engaged in the supervision and management of lunatics. Of these, the most ancient and still the most important is the Court of Chancery. The lunacy business of this Court is conducted by two masters,

a registrar, and three visitors, of whom two are medical men. All are appointed by the Lord Chancellor. They appear in the civil service estimates for £23,000 a year, but a portion of this is recouped by a small charge upon the estates dealt with when the annual value is more than £100; in no case does the charge exceed £200 per annum for a single lunatic. Although the masters have £2000 salary, they are not entrusted with any independent power. Their duty is simply to inquire and report to the Court, and every step they propose to take may be opposed. Even when the patient is pronounced insane, they cannot sanction an agreement or a lease without reference to the Lord Chancellor. To make a man insane by law is still, therefore, a tedious and expensive process; and, as the intervention of a solicitor becomes necessary at every step and for every after-transaction, the process of petitioning for what is called a "commission of lunacy" is one which can only be had recourse to by the rich, and even by them it is often postponed until the lunatic or his family are suffering from want of funds, there being no sufficient authority for giving a receipt.

It will be observed that two totally distinct questions are brought before the masters: first, that of lunacy; secondly, that of administering the property of the lunatic. With regard to the first, it is determined by one of the Masters in Lunacy, with the assistance of his clerk. Both are lawyers, and their report is based on a personal examination of the lunatic and the affidavits of the medical practitioners and others who have had charge of him. In ninety-nine cases out of a hundred the inquiry is perfectly superfluous. The patient has been a confirmed lunatic for years. He has been visited over and over again by the Lunacy Commissioners, and the learned masters, who are supposed to know so much of lunacy, but who in reality acquire what little knowledge they have after their appointment, make a solemn report to the Lord Chancellor. Now and again the lunacy is challenged; sometimes by the lunatic himself, oftener by the solicitor who acts in his behalf, and who has the prospect of increasing his bill by demanding a jury. In that case we have all the expensive arrangements of a public Court, in which the various interested parties must be represented by counsel, to the very serious diminution of the lunatic's estate. When declared insane, the lunatic is committed to the care of one person—entitled "a committee"—and his estate to another; and he is placed in charge of the three visitors, who are bound to see him every six months, if in a licensed asylum, or every three months if resident in a private house or with friends. There are said to be about 700 lunatics in charge of the Court, and their united income is between £300,000 and £400,000 a year. With the administration of this we have now nothing to do; but we may observe, in passing, that the ignorance of the committee men and their forced dependence on the Court of Chancery give rise to perpetual litigation, and that a vast improvement would be effected by placing the property of lunatics in the hands of official assignees or professional committees similar to those now acting in the case of bankruptcy—power of appeal being given to the higher Court. In case of recovery, the proceedings have to be repeated; but it is obvious that the lunatic is placed at a considerable disadvantage, as every one about him is more interested in keeping him insane than in restoring him to liberty, and it is probable that one of the most difficult duties of the masters and visitors is to protect the lunatic against the selfishness of his relations and of those who have charge of his person and estates.

So much for the rich; but for the moderately well-to-do there is positively no resource. A man may be hopelessly insane, and yet his friends may be deterred by expense and other considerations from prosecuting a petition to the Court of Chancery. In such cases the lunatic often wastes his property in all sorts of follies, his family is beggared, and, although he may be taken to an asylum at an early stage of his complaint, his wife and friends incur considerable risk in dealing with his property for want of a simple and inexpensive machinery for declaring him insane.

But the Lord Chancellor has also the nominal charge of another department. The Lunacy Commissioners make their annual report to him. This Commission consists of eleven members, of whom six are paid. All are appointed by the Lord Chancellor. The total cost of this Commission is £15,432 a year. The Commissioners may be regarded as the wandering police of lunacy. They have the general supervision of all lunatics except those declared so by the Court of Chancery. They visit and report on the state of all public lunatic asylums, workhouses, and private establishments for the insane, and they have power to order the discharge from the latter of patients who are well. They reported on 56,755 lunatics last year, of whom 50,185 were paupers.

Here it is that the third authority having to deal with lunacy comes in. The Local Government Board, the Poor-law inspectors, and the medical officers of the Poor Law, really have as much to do with the question as the Lunacy Commissioners. The duties of the two authorities clash with and overlap each other at every point. Complaints and differences of opinion are constant, giving rise to confusion, recriminations, and delay. Common sense would say that the Commissioners in Lunacy, having the practical supervision of 50,000 pauper lunatics, should be subject rather to the Local Government Board than to the Court of Chancery. The Lord Chancellor has no interest in the appointment of Lunacy Commissioners beyond the exercise of patronage, and the Commissioners are too apt to ignore those principles of economy which Mr. STANSFELD is bound to maintain. The principal idea of the Commissioners is to shut up the lunatics in huge asylums, where they may be inspected with very little trouble; whilst they have no provision for looking after the treatment of the 7333 paupers who are residing with their friends. The district medical officer visits them once a quarter, but he is not called upon to report as to the sufficiency of the maintenance provided for them, nor is it any part of his duty to insist upon the administration of adequate relief. In Scotland the whole of this class is visited by the Commissioners; and if the Lunacy Commissioners in England were transferred from the Lord Chancellor to the Local Government Board more efficient supervision of this class might easily be managed, the effect of which would be to diminish the necessity for

building new asylums, and to give to a large number of harmless insane the advantage of greater liberty.

Lastly, we have a fourth authority, new to the constitution, and virtually an extension of the Royal prerogative. Now we have no desire to curtail the powers of an English jury, or to withdraw any points from their consideration which affect the question of guilt. There are, indeed, great advantages in having the whole of the attendant circumstances connected with the crime perpetrated by the insane brought publicly to light. But, it having been repeatedly found that a jury is not the best tribunal for determining the responsibility of the convict for the crime he has committed, it is a serious question whether the Home Secretary should refer the matter to a shifting and irresponsible tribunal like that employed in the case of CHRISTIANA EDMUNDS.

In conclusion, we believe that a good case has been made out, on grounds both of superior efficiency and economy, for reconstituting the Lunacy Commissioners under the Local Government department, and making them the sole authority to determine the question of lunacy and its treatment in all ranks and conditions of life.

THE readers of provincial newspapers must lately have observed indications, in various parts of the kingdom, of a rising up of constituted authorities against the discretionary powers of coroners. In former times the coroner was called upon to present his bill of costs for inquests at each Court of Quarter Sessions, and was liable to have any inquests disallowed for which, in the judgment of the assembled quorum, sufficient cause was not manifest upon the face of the evidence. The discretion thus vested by law, in persons often but slightly gifted with discretion by nature, was found to lead to manifold hardships and abuses. It led to hardships, because the coroner was liable to lose not only the fees due to himself, but also the sums that he had paid out of his own pocket to witnesses and others; and to abuses, because, when the tendencies of the Bench were economical, coroners abstained from holding inquiries in any but flagrant cases. As a remedy for these evils, the plan was devised of paying coroners by salary, this to be revised triennially; and a coroner has now no pecuniary inducement to hold an inquest, except the slight one of its influence upon his averages against the next period of revision. Now again, however, a cry is being got up against "unnecessary" inquests. It proceeds most loudly from the board of guardians of St. Pancras; and, if it proceeded from them alone, might safely be neglected. But the magistrates of various counties are joining in it with considerable vigour; and it therefore becomes worth while to see upon what kind of foundation it is based.

We do not for a moment dispute that many inquests are held for which there is no necessity—so far as the fact is concerned that inquiry dispels suspicion or removes doubt. But it is very easy to be wise after the event; and a death may well be surrounded by rumours which render an inquest expedient, even though it should turn out that the demise was a purely natural one. The Irishman, when asked to plead guilty or not guilty, inquired how he could tell which he was before he had heard the evidence; and the coroner may frequently say, after the examination of witnesses, that if he had known the facts before he might have dispensed with the inquiry. We believe, however, that the holding of frequent inquests adds greatly to the security of life in this country; and that such security would be distinctly diminished by any appreciable diminution in their number. The Coroner's Court has been a very frequent means of bringing to light crimes that would otherwise have remained not only concealed, but even unsuspected; and the knowledge that sudden death is followed by inquiry has, no doubt, a powerful effect in restraining poisoning and other forms of murder. We know of one coroner who very distinctly checked the excessive infantile mortality of his district by holding an inquest on every illegitimate child for whom the cause of death was not certified; and it is manifest that a sagacious man, guided by local knowledge and experience, may often so conduct himself as to produce very salutary changes. In Nottingham, some years ago, there existed a workhouse which would probably have been standing to this time had not the coroner for the borough, during several months, held an inquest on every person who died within its walls, and thus rendered a succession of juries acquainted with its construction, and with some, at least, of the details of its management. The workhouse authorities stormed and vociferated in vain, and tried in vain to conceal the occurrence of deaths from the vigilant public officer. Eventually the coroner carried the day, the workhouse was pulled down and a new one built, and then the inquests were discontinued. County magistrates are the very last persons who should exercise the smallest jurisdiction over a coroner; for the simple reason that they manage and control large establishments, such as prisons and lunatic asylums, containing numerous helpless inmates for whom the coroner's court is an indispensable protection. We have heard of many and fatal cruelties in such establishments; and if the victims could be buried without inquiry, these cruelties would not only never come to light, but might be perpetrated upon many who now escape them. It is quite possible that some check upon inquests may be desirable, but it should not be placed in the hands of guardians or magistrates, or of any authority less than that of one of the superior courts of law or of the Home Secretary; and the necessity for an inquest should not be judged by the evidence given upon oath before the jury, so much as by the preliminary statement by which the decision of the coroner must be determined. It is a pitiful thing for a county to haggle over a few guineas of remuneration to coroners or to witnesses, or to attempt, for the sake of such paltry saving, to remove a protection to life and a frequent cause of the discovery of crime.

M. QUATREFAGES has resumed his course of lectures on Anthropology, interrupted by the war, at the Musée d'Histoire Naturelle de Paris; and has taken for his subject "The Formation and Characters of the Hybrid Races of Man." Two causes bring about the formation of mixed races. The first is the action of surrounding conditions, which lead to certain modifications in a newly-introduced race that cause it to approximate the local races. Thus

M. RECLUS states that in America the negro and the white man alike tend to acquire a red tint of skin. Secondly, crossing; and, thirdly, the combined influence of surrounding conditions and crossing. The results of crossing may be shown in three different modes:—1. Each type, more or less completely subdued in certain points, declares itself supreme in others; hence we see the juxtaposition of characters borrowed, so to speak, from each parent. 2. Each type may act on the whole organism as well as on certain details; hence arise characters intermediate to the two parents. 3. The characters of the parents may be so fused as to produce a resultant necessarily distinct from its factors.

M. QUATREFAGES next considers the objections that have been raised, especially by Dr. NOTT, in respect of the fertility of the white man and the negro. Dr. NOTT thought that though progeny were produced by the first crossing, yet that the race would not continue by reason of the feebleness of the male mulatto, the small fecundity of the female, and the fact that the latter made a bad nurse. Dr. NOTT, however, admits that this was only the case in South Carolina; and that he had seen large and healthy families of mulattos of the first, second, and third degree in Louisiana and Florida. This however he explains by maintaining that in Carolina the Anglo-Saxon element prevailed, whilst in the other the French or Spanish Celtic element was predominant—a race much more nearly allied to the negro than the Anglo-Saxon. M. QUATREFAGES disposes of these objections by recounting the history of the States in question, showing that the Anglo-Saxon element is largely present in them; and thinks that what differences do exist are due, not to the nature and characters of the white element, but of the surrounding conditions. The hybrid races of man have multiplied to an extraordinary extent since the very end of the fifteenth century. In the 400 years that have elapsed since the discovery of America and the doubling of the Cape, it is calculated that one-sixty-sixth of the entire population of the globe—the latter reckoned at 1200 millions—has become mixed, and the greater proportion of the mixed races are also hybrid—that is, have become mixed by inter-crossing.

Medical Annotations.

"Ne quid nimis."

MEDICO-LEGAL RESPONSIBILITY AT THE ANTIPODES.

FROM a series of papers which have been forwarded to us, we learn that a recent trial, in which a surgeon was successfully sued for malpraxis by his patient, has much exercised the profession in Melbourne; and the question has, according to custom, been warmly taken up by the local press, both lay and medical. A Mrs. Turner, whose age, according to opposite statements, ranged from fifty to seventy, was unfortunately tripped up by a dog on Oct. 11th, 1870. She called in Mr. Van Hemert, who, after a careful examination of the limb, failed to detect either shortening, eversion, or crepitus—the ordinary symptoms, we need hardly say, of fracture of the neck of the femur,—and therefore announced that no fracture existed. A bruise of the knee was carefully treated, and the patient was doing perfectly well, when on Nov. 15th she informed her surgeon that during the preceding night, whilst turning in bed, a sudden crack had been heard. On examination, Mr. Van Hemert found the limb shortened and the foot everted, and crepitus was readily produced. He applied a splint at once, but four days after was abruptly dismissed by Mrs. Turner, who put herself under the care of Mr. Crooke. This gentleman called in Mr. Beaney, and they together made an examination under chloroform on the 22nd, and subsequently applied a splint and starch bandage, in which the patient was kept for some months (!), and recovered with a shortened and damaged limb. For this she brought an action against Mr. Van Hemert (who had attended her gratuitously), and the jury awarded £230, her earnings having been about £1 per week. An appeal to the higher court was unsuccessful, and Mr. Van Hemert was finally saddled with the amount mentioned and legal expenses. At the trial, both Mr. Crooke and Mr. Beaney swore that there was crepitus to be readily felt when they examined the patient, and that there were shortening and eversion of the limb. This shortening they attributed partly to muscular contraction and partly to adhesions between the broken surfaces, and they protested that the fracture could not have been recent. It is somewhat difficult to reconcile these views with the undoubted fact that crepitus existed; for if there were crepitus there could not be adhesions, and if there were adhesions there could not be crepitus! Nevertheless, the judge and jury, finding the patient damaged and the doctors disagreeing, gave heavy damages for a result which was, as we believe, inevitable, and in no way attributable to want of skill on the part of Mr. Van Hemert. It is obvious from the summing up of the judge that he was unable to appreciate the necessity for the change in treatment adopted by Mr. Van Hemert when evidence of fracture was apparent; and yet we venture to say that treatment by pillows only, when no evidence of fracture existed, and the subsequent application of a splint, would be supported by the best authorities.

We notice that both the *Australian Medical Journal* and *Australian Medical Gazette* take Messrs. Crooke and Beaney to task for their evidence, and we cannot but think them to blame in having given evidence against a brother practitioner who appears to have been the victim of circumstances. The *Australian Medical Gazette* strongly maintains that the case was one of spontaneous fracture of the neck of the thigh, but we see no necessity for seeking such an exceptional explanation. The case is one which is well known, and of which there are plenty of examples on record—cases in which intracapsular fracture of the neck of the thigh-bone occurs without laceration of the tough periosteum, and, therefore, without any displacement until by some movement of either patient or surgeon this is brought about, with the immediate production of deformity, crepitus, and all the ordinary signs of fracture. The theory set up by Messrs. Crooke and Beaney, that the fracture must have been complete at the time of the accident, because of the adhesions which prevented the limb being elongated, is sufficiently confuted by their own evidence that crepitus was readily felt, and the contraction of the muscles would alone be quite sufficient to produce this effect.

The only satisfactory feature in the case is the manner in which Mr. Van Hemert's brethren have come forward to vindicate his professional character, and assist him in paying the heavy expenses incurred. A special meeting of the Medical Society of Victoria was held, under the presidency of Professor Halford, at which a unanimous feeling as to the injustice of the verdict was expressed, and a subscription entered into for Mr. Van Hemert's assistance. It will

doubtless be a consolation to that gentleman to know that his case has excited sympathy in this country, where, of necessity, all personal or political bias must be wanting.

THE NATIONAL THANKSGIVING.

There are some suggestions which have only to be made to command the hearty acceptance of everybody. Such is the nature of the suggestion made to-day in another part of The Lancet by a correspondent—viz., that thousands would be glad to make the thanksgiving of the nation a practical thing by contributions on that day to the great hospitals. It is an honoured and recognised mode of expressing gratitude to make some sacrifice or offering in behalf of those who may still be in affliction. Nothing could be more pious and nothing more practical. Such a proceeding would command for our great thanksgiving ceremony the reverence at once of men of faith and men of works. The large provincial towns, such as Birmingham, Liverpool, and Manchester, make enormous annual collections on what is well known now as Hospital Sunday, and by so doing enrich all the needy charities of these towns. In London there are many hospitals doing a most urgent and laborious work under conditions of poverty that are simply discreditable to London. Let this occasion be taken by the hand to show that the great ordeal through which the nation has passed has deepened its sympathies and lessened its selfishness. The wealth and fashion that will gather at St. Paul's on that occasion cannot more suitably recognise the Providence that has spared the Prince of Wales than by generous contributions to the hospitals of London, which provide a home and the highest medical advice to the sick poor. It gratifies us much to think that the Prince himself has taken the lead in this highest form of thanksgiving.

NAVAL "SAVINGS."

By "savings," in naval parlance, is meant the sum received in lieu of provisions by officers and men of Her Majesty's ships, and these have recently undergone new regulations by an Admiralty circular dated December 28th, 1871. It may be remembered that the trials of certain ship stewards of men-of-war in the early part of last year showed the present arrangements respecting the supply of fresh meat and vegetables to the fleet to be unsatisfactory both to the Admiralty and the crews; and a subsequent regulation respecting the "stoppages" of men on leave was so unpopular as to lead to something approaching a mutiny among the petty officers of the ships on the home station. In the circular to which we have now to call attention, the Admiralty has doubtless made a bid for popularity, for the objectionable order is rescinded, and the system of payment for savings, hitherto affecting only the issue of salt meat, is extended to the issues of fresh meat, vegetables, soft bread, mustard, pepper, and vinegar. These articles, when not taken up in the authorised quantities by the messes entitled to them, are to be paid for at the following rates:—Fresh meat, 4*d.* per lb.; vegetables, ½*d.* per lb.; soft bread, 1½*d.* per lb.; mustard, 3½*d.* per lb.; pepper, 4½*d.* per lb.; and vinegar 6*d.* per gallon. These rates are sufficiently below cost price to guard the Government from any losses by fluctuations in the market, but they are still high enough, we fear, to lead to decided deterioration of the health of crews, and for the following reasons:—Each mess of seamen is entitled, but not compelled, to draw a certain allowance of fresh meat, vegetables, &c., for each member; and if this is not drawn the equivalent in money, according to the scale given above, is paid over and divided among the members. Now, each mess contains both old and young hands. The older men, with wives and perhaps families on shore, will be glad enough to have a few shillings extra from the "savings" every week to take home; the younger men will be equally willing to forego their fresh meat and vegetables for the sake of extra money to spend on shore or in drink. What, then, will be the result? That instead of a crew putting to sea refreshed by shore-growing diet, with all scorbutic taint removed, and ready for any average hardships, we shall have the men practically on sea-diet all the year round, the effect of which will doubtless be seen in increased sick-lists, in the development of boils, and in a general deterioration of physique.

It is much to be regretted, we think, that an order so vitally affecting the health of the navy should have been promulgated without, as we presume, any consultation with the medical department of the service. We feel sure that Sir Alexander Armstrong would have protested as strongly as we do against a practice which must necessarily be fraught with evil, and one which his Arctic experience would have shown to be most injurious.

THE CONTAGIOUS DISEASES ACTS.

We have before us a letter addressed to the Home Secretary in support of the Contagious Diseases Acts by leading members of the medical profession, copies of which are at the present time being circulated for the perusal and signature of medical men generally. The deteriorating influence exercised by this form of disease on the public health, the suffering it entails upon large numbers of innocent individuals, and the beneficial sanitary operation of the Acts now in force, which can be shown to have reduced the more serious form of disease by considerably more than one-half in the districts where they are in operation, are pressed upon the notice of the Home Secretary. Plymouth and Devonport may be pointed to as showing the beneficial operation of the Contagious Diseases Acts. In April, 1865, there were in these districts no less than 109 prostitutes under fifteen, and 207 under seventeen years of age; but on the 31st December last there was not one under fifteen, and only one under seventeen. During the past year 58 girls between the ages of thirteen and twenty-one, found in brothels in these districts, were restored to their friends, without having been subjected to the operation of the Acts, and 69 others were restored to their friends or placed in asylums, after being cured at the hospital. Thus the Acts are seen to be reclamatory as well as preventive. The declarations contained in the letter to the Home Secretary are, we firmly believe, based upon the most trustworthy evidence. It would be too much to hope that these will convince a class of people who persist in disseminating mischievous, false, or exaggerated statements; but we join heartily with the eminent members of the profession whose signatures are attached to the document, in the earnest hope that Mr. Bruce may be induced to look the facts in the face, and to take a statesmanlike view of the matter, and that he will not be misled by the clamours and prejudices of a factious opposition. Nearly all the medical men in the following towns have already signed the letter—viz., Southampton, Chelmsford, Northampton, Leamington, and Brighton. Medical men, who are painfully familiar with the real state of the facts, will, we doubt not, aid the promoters of the movement, so that the profession may speak to Mr. Bruce as with one voice. Those who may require copies of the letter should at once intimate their wish to Mr. J. Brendon Curgenven. A sub-committee of the Association for Promoting the Extension of the Acts are preparing a report

on the evidence before the Royal Commission, which will be ready in a few days. Very scant justice has been done, we may remark, to the committee of the Association, and their labours have not obtained the recognition they deserved. It would manifestly have been very imprudent, if not improper, to have held any public meeting on the subject and prejudged the results of the Royal Commission while that body was sitting; but it is well known that weekly meetings of the sub-committee took place for many months, and that the evidence given before the Commission was fully considered, and arrangements were made in many ways for facilitating the work of the commissioners, so as to put them in possession of the most reliable evidence. The honorary secretaries—Mr. J. Brendon Curgenven in particular—have spared neither time nor trouble in carrying out the difficult work they had to do.

THE BATH AMONGST THE PUBLIC.

THE increased attention which is beginning to be paid by the public to the important habit of regular bathing indicates a satisfactory reaction from the utter neglect of one of the most vital items of personal and public hygiene which has characterised man for several centuries past. The erection of public bath-houses, the establishment of swimming-baths in greater number, and the introduction amongst us of Turkish baths (which are springing up in abundance everywhere in the country, and are frequented by daily increasing number of bathers), show plainly enough that the tendency of the age is towards a resuscitation of a system which once had a sway in the civilised world as universal as it was beneficial. It is said that for centuries Rome had no physician but the bath, and, if not literally, it was practically true. It is no less certain that much of the vigour and manliness of the Romans was due to the important part which the use of the bath played in the employments of every-day life amongst them, and it cannot be questioned that as a nation we should be healthier in mind and body if the bath in its various forms were universally adopted amongst us. Our neglect of this valuable conservator of health is in no way better exemplified than in the absence from ninety-nine out of every hundred of modern houses of any proper bath arrangements, or means of free personal ablution—an omission which we hope will before long be rectified.

There are many indications that during the next few years great results may be anticipated from the increased attention which is being paid to this subject. The fact that medical science is culling from hydropathy what is of importance, and putting it into scientific shape—that leading minds are at work in testing the operation of various kinds of baths as therapeutic agents, not only in slight, but in grave diseases, and establishing their claim to the confidence of the physician, by the establishment of proper baths at our hospitals—these things, whilst they will give a great impetus to the introduction of the bath system as against disease, must indirectly encourage all attempts to institute bathing establishments for public use by the healthy as a preventive of disease.

We are led to these reflections by the announcement of a project to utilise the Colosseum for the establishment of a regular Spa for the purpose of supplying a complete system of baths of the most varied kinds, including sea-water and fresh-water lakes, Turkish, Russian, vapour, plunge, salt, and medicated baths, in conjunction with the various accompaniments that go to make up a regular Spa—for instance, arrangements by which visitors could obtain the different mineral waters of Vichy, Ems, Wiesbaden, the adjunct of a winter garden and summer lounge, concert-rooms, club, and the like. We of course look to the sanitary character of the undertaking, and should rejoice to see it a success. Of the financial part of the project we as yet know nothing. But, at all events, the main object is an excellent one, the plans are very good, and, on public grounds, the undertaking deserves support.

THE LATE ECLIPSE.

IN a recent number of *Nature*, Mr. Norman Lockyer gives quite an exciting account of his observations. The time at his disposal was 120 seconds, and a good deal had to be done. He determined to limit his spectroscopic observations to the spectrum of a striamen, and to Young's stratum, thereby liberating a number of seconds, which would enable him to determine the structure of the undoubted corona with a large refractor, to observe the whole phenomena with the naked eye, and through a train of prisms with neither telescope nor collimator, and finally with a Savart and biquartz. Speaking of the corona, he says it was as beautiful as it is possible to imagine anything to be, strangely weird and unearthly, of the purest silvery whiteness. Mr. Lockyer did not pay attention to the prominences at that time, but saw only the star-like decoration, with its rays arranged almost symmetrically, three above and three below two dark spaces or rifts at the extremities of a horizontal diameter. The rays were built up of innumerable bright lines of different lengths, with more or less dark spaces between. He next tried the spectrum of a striamen above the point at which the sun had disappeared, and obtained a vivid hydrogen spectrum. He then went to the polariscope, contrived as a double eye-piece to a small telescope, one containing a Savart and the other a biquartz. In the Savart he saw lines vertical over everything. In the other faintly coloured wedges. From this he passed to an instrument composed of a simple train of prisms. He then studied the structure of the corona and prominences, first with a 3½-inch finder, and finally through a 6-inch Greenwich refractor. Through this "the structure of the corona was simply exquisite, and strongly developed. I at once exclaimed, 'Like Orion.' Thousands of interlacing filaments, varying in intensity, were visible in fact. I saw an extension of the prominence structure in cooler material." Pretty well for 120 seconds. The same number contains an interesting account of Captain Maclear's observations.

LEGAL AND MEDICAL POOR-LAW OFFICIALS.

IN our issue of the 30th ult., we inserted a communication from Dr. R. Fowler, ex-medical officer of the East London Union, now incorporated with the City of London, calling attention to the differential treatment adopted by the Poor-law Board in deciding the relative claims of the clerk to the guardians and of the district medical officers to compensation, consequent on the deprivation of their respective offices subsequent to the amalgamation of the City unions. Dr. Fowler showed that the Poor-law Board in the clerk's case, in accordance with the powers conferred on them by the 30 & 31 Vict., cap. 106, and 31 & 32 Vict., cap. 122, decided what should be the compensation given by the guardians, including in such estimate all fees and advantages contingent to or appertaining to such appointment, and subsequently successfully defended in a court of justice the legality of their award. In the case of the medical officers, the Poor-law Board, in direct contravention of the same Act of Parliament, relegated to the guardians the determination of the amount of compensation, and when the medical officers appealed against the unfairness of the guardians, the Board sided against them, by affirming that

the lunacy and coroner's fees, and all the other contingent advantages appertaining to the office, should be struck off the estimate on which such compensation was granted.

The deferential consideration thus shown to the legal adviser of the guardians is probably in great part explicable by the fact that the permanent department of the Local Government Board is constituted almost exclusively of legal gentlemen, who doubtless would be disposed to look more favourably on the claims of one of their own profession. But apart from that, it might be freely contended that it is also the natural outcome of that mingled hostility to and disregard of the claims of the medical service which the permanent staff has invariably evinced. The department knows full well that the legal profession, so largely represented in the Legislature, would combine as one man in resisting even a show of injustice to the humblest member of their body; whilst the medical service, not being so united, may be trampled on with impunity. The facts in this case are, however, so clear, and evince so marked a partisanship, that we would advise Dr. Fowler, with a view to the matter being deliberated, to bring the subject under the notice of a medical member of the House, whose action might be roused and supported by the large Parliamentary influence which the Poor-law Medical Officers' Association possesses.

NATURAL SCIENCE SCHOLARSHIPS AT CAMBRIDGE.

WE are glad to find that most of the colleges at Cambridge are now offering scholarships for natural science. Among those so doing are Trinity, St. John's, Christ's, Caius, Clare, Downing, Sidney, Emmanuel, Pembroke, and St. Peter's. The value of the scholarships is from £20 to £80 a year. The examinations begin on the 19th of March, and are, in most instances, open to all persons who are not members of the University, the object being to attract students of natural science to the University and the Colleges. There is no restriction on the ground of religious opinion; but the candidates will be required to show a fair knowledge of classics and mathematics. Information respecting the scholarships at any particular college may be obtained by writing to the Tutor of the College. It is stated that the Colleges are also willing to award Fellowships for proficiency in natural science; and we believe this has already been done in several instances.

THE CHELMSFORD DISPENSARY.

THE Chelmsford Dispensary of some six years ago was little more than a name. The two medical officers then attached to it received £42 per annum as an honorarium for their services. Owing in a great measure to their exertions, and especially to those of Dr. Nicholls, the dispensary added to itself an infirmary, and the out-patients have increased from two to upwards of eight hundred per annum. A few months ago Mr. Gilson, one of the medical officers, resigned, and the work of course fell upon the other. The committee took the opportunity of this vacancy to issue a circular to the various members of the profession resident in Chelmsford, asking them to give their services to the institution gratuitously. The profession, with one exception, did not respond to the solicitations of the committee; but the gentleman who proved the exception was appointed to the vacancy, and notice was at the same time given that the gratuity hitherto voted annually to the remaining officer would be discontinued. The absence of due consideration, or even courtesy, displayed by the committee in this instance must be obvious. The majority of the practitioners in the town, very properly in our opinion, refused an appointment without remuneration, especially when their acceptance of it entailed the withdrawal of the gratuity from the remaining officer and his being ousted from his position. No notice appears to have been given by the committee to Dr. Nicholls of the course they intended to pursue. There are, as everybody knows, a good many evils connected with the system of gratuitous medical services; but if members of the medical profession find that, after years of such labour for charitable institutions, they are to meet with this kind of recompense, respectable and able men will hold themselves aloof from them altogether.

DRUNKENNESS IN LARGE TOWNS.

THERE is much difference of statement as to the increase or otherwise of drunkenness in the country. If Professor Levi's statistics, detailed at a recent conference in Manchester, may be relied on, the committals for drunkenness in England and Wales in 1860 were 88,000, and in 1870 132,000—an increase of 50 per cent. In Manchester the increase of committals from 1860 to 1870 was 375 per cent., or, computed according to the increase of population, 353 per cent. Other congenial offences, as vagrancy, assaults, &c., determined summarily, had increased from 8508 in 1860 to 24,719 in 1870. In London, drunkenness is in the proportion of 5·43 per 1000; in Leeds, 7·49; in Manchester, 31·13; and in Liverpool, 42·82. The increase in public-houses and beer-houses in Manchester has only been 6 per cent. since 1860. It is curious that with an increase of 300 per cent. in drunkenness, there should be only a slight increase in the number of public-houses, and a very marked decrease of complaints against beer-houses and public-houses. It requires explanation that with such an improvement in the conduct of licensed victuallers, there should be such a growth of disorderly drunkenness among their customers. In 1862, reports against beer-houses were 595, and in 1871, 289; against public-houses 59 and 35 in the respective years. Professor Levi surmised that overcrowding had something to do with the increase of drunkenness. In London, the number per acre was 7·28; in Leeds, 13·47; in Liverpool, 35·36; and in Manchester, 57·95. The police force in London is 21 per 1000 acres; in Liverpool, 86; and in Manchester, 122. Dr. J. Watts accounted for the increase of drunkenness at Manchester by three facts—more wages, more leisure, and no decrease of ignorance. Most medical men will look to better education and better sanitary conditions as the chief remedies. But the working classes must help themselves in this matter. The money spent in buying unreasonable quantities of beer and spirit would pay the rent of an additional room.

MEDICAL MUDDLING IN THE ISLE OF MAN.

IT appears that during the past two or three months the ecclesiastical, legal, medical, and official inhabitants of this "tight little island" have been torn by internal dissensions upon no less a subject than hospital administration. The governors of the Isle of Man General Hospital and Dispensary, having lost a very valuable resident medical officer (Dr. Fothergill), who died of enteric fever, came to the conclusion, at a meeting held some three weeks ago, that a resident officer was not now required, and that his duties could be as well performed by a practitioner residing in the town. The High Bailiff (a person, we may presume, invested with an intense amount of authority) thought £100 a year "a paltry salary" for a house-surgeon; the Rev. Mr. Hawley scouted the idea "that a man might bleed to death for want of a resident surgeon"; and Dr. Ring remarked "that medical men practising at a distance from the large hospitals had quite as good a chance of being

acquainted with the most recent practice as those fresh from them, inasmuch as all these matters were fully set forth in the medical journals, in these days nothing being hid." We need not pause to criticise the somewhat eccentric opinions above-quoted, but take leave to compliment most highly the single-handed and energetic opposition of Dr. Wood, and to "fully set forth" the opinion of THE LANCET in this, or in any other such matter, that no institution taking rank as a hospital can be properly said to exist without a resident medical officer.

THE CLINICAL SOCIETY.

THERE was a very full attendance at the meeting of this Society on the 26th ult., and the annual address (which will be found in another part of our present issue) was received with marked interest and attention. Mr. Cooper Forster, whose paper headed the list, proposed a vote of thanks to the President for his able address, and suggested that the members should at once go quietly home and inwardly digest it. Mr. Arthur Durham seconded the proposition in his accustomed flowery style (faintly tending, on this occasion, to the lachrymose); but the President, in acknowledging the vote of thanks, ruled that the Society should commence work. Mr. Forster bowed acquiescence, and the case proceeded.

ARMY MEDICAL SERVICE.

WE understand that Mr. Cardwell has decided that in future the appointments in the various branches of the Medical Department at Whitehall-yard shall be tenable for five years, and that they can only be renewed on public grounds with the sanction of the Secretary for War. Dr. Rutherford, C.B., the successor to Dr. Crawford, is shortly expected to take up the duties of the Medical branch; and Dr. Muir, C.B., will, on his arrival from India, become the head of the Sanitary branch. Dr. Beatson, C.B., will embark early in the present month for India, as Inspector-General of the British Medical Service in that country, and Dr. Crawford will about the same time proceed to his post at Umballa as Deputy Inspector-General, vice Deputy Inspector-General Munro.

ENTERIC FEVER IN INDIA.

THERE is very little doubt, we think, that cases of enteric fever occurred in India long before the disease was generally recognised or distinctly described in medical and other publications; but it would seem that of late years this form of fever has become more common than formerly. At any rate, it is common enough among our European troops at the present day. Not very long ago many cases occurred among the troops at Bangalore, and the causes of the outbreak were not, to our minds, thoroughly determined. Some cases have occurred recently in the 59th at Mhow, the 8th at Nusseerabad, and an infantry regiment at Neemuch.

THE PLYMOUTH PROVIDENT DISPENSARY.

WE publish elsewhere a letter from Mr. Jago of Plymouth, which places on record the efforts made to establish there a provident dispensary. We fully concur with Mr. Jago in regretting that a free dispensary should be an obstacle in the way; and we use the word "free" in designed contradistinction to "charitable." The only charitable dispensary is the provident one; for it is true charity to organise a system by which the wage classes may receive proper care during sickness, without either incurring debts which they may be unable to pay, or being pauperised by an alms to which they have no claim. A hospital is a perfectly intelligible institution, for reasons which it is unnecessary to set forth, but a "free" dispensary can have no *raison d'être* in a place where there is a properly organised provident one, and must, under such circumstances, be an unmixed evil and abuse. We do not regard a self-supporting dispensary with only two or three medical officers, such as that at Northampton, as fulfilling the conditions of a truly provident institution; for, although it may be a successful commercial speculation, it is for that very reason more likely to be worked chiefly with a view to profit, by men of commercial instincts, than for the fulfilment of all the purposes which it ought to serve. We shall watch the progress of the Plymouth institution with much interest, and shall fully expect it to be a success in the highest sense.

MILK IN WORKHOUSES.

WE have already called attention to the disgraceful condition of the commissariat in the metropolitan Unions. A report presented to Parliament at the end of last session makes some astounding disclosures relative to the milk administered to the London pauper. It ought to be genuine milk—"the best unskimmed milk" by the terms of the contract. It is often, as Mr. Wanklyn's analyses have shown, entirely denuded of cream, and diluted with its own volume of water. Government is now in possession of the facts; let it act on its knowledge.

ON Thursday, January 25th, a lecture was delivered at the Plymouth Athenæum by Mr. Christopher Bulteel, F.R.C.S., upon "Fever Hospitals and the Small-pox Epidemic," especially dealing with the prevalence of small-pox in Plymouth, Devonport, and Stonehouse. The lecturer advocated the erection of a joint rate-supported fever hospital, and gave a description of what he considered a model building. Lastly, he suggested that there should be a medical officer of health for the three towns, who should devote his whole time to the duty; and that there should also be a rigid and thorough registration of diseases.

THE contributors to the Edinburgh Infirmary held an adjourned meeting on Monday last. The Lord Provost, who presided, announced that, as the Court of Session had not yet settled the interdict case, no business could be transacted by the meeting, which must accordingly be adjourned. A characteristically stormy scene occurred over the minutes, and much time and temper were lost in discussing the question of giving up the list of votes to the scrutineers appointed at the last meeting. No satisfactory conclusion was come to, and eventually an adjournment till the 26th February was moved and carried.

A SPECIAL meeting of the Council and members of the Poor-law Medical Officers' Association will be held at the Medical Club, 9, Spring-gardens, on Monday, Feb. 5th, at 7 P.M. precisely, for the purpose of conferring with Mr. Corrance, M.P., as to the course to be taken by that gentleman in the ensuing session of Parliament in furtherance of the objects of the Association. Sir Dominic Corrigan, Bart., M.P., and Mr. M'Cullagh Torrens, M.P., have been invited to attend.

A LARGE and influential party of ladies and gentlemen, friends of Wm. M'Kechnie, M.D., late of Greenhill House, assembled at a *déjeûner* in the County Hall, Paisley, on Monday last, for the purpose of presenting him with a testimonial, on the occasion of his relinquishing his professional practice in the town—a step rendered necessary in consequence of the health of the recipient. Provost Murray

presided, and presented the testimonial, which consisted of a magnificent ornamented vase, and tea, coffee, and fruit service, all in solid silver, as a small token of the esteem in which they held Dr. M'Kechnie, and of the respect entertained towards him by the people of Paisley. The service was richly chased, and was valued at about 200 guineas. Dr. M'Kechnie replied in very feeling terms; and said that he should hand the testimonial down to his children as a proof to them of the position which their father once occupied in the estimation of his friends in the town of his birth.

FROM Berlin we learn that, along with the diplomatic and military history of the late war, a series of medical reports will be compiled and published by the Army Hospital Department. The causes of invaliding as well as of mortality in the German army will be exhaustively set forth, while comparisons in both respects will be instituted between the other European establishments and that of the Fatherland.

SIR WILLIAM GULL has, it is reported, just purchased the estate of Relugas, in Morayshire, a county of which, in common with Sir William Jenner, he holds a high opinion for its mild and equable climate, and to which he has frequently sent his phthisical patients. Sir William goes to Sandringham to visit the Prince of Wales on Saturday.

THE "Erratics" will give a performance on Thursday, Feb. 8th, at St. George's-hall, Langham-place, in aid of the funds of the London Hospital. They were enabled last season to clear over £60 for various charitable institutions, and they deserve much commendation for their excellent benevolence.

ON Tuesday the Lord Mayor presided at a public meeting held at the Mansion House in aid of the Livingstone Search and Relief Fund, now being organised by the Royal Geographical Society. The subscriptions in hand were stated to amount to £2800. The expedition will be headed by Lieutenants Dawson and Henn.

THE guardians of St. Pancras have requested Dr. Bridges and Dr. Dowse to visit the Workhouse Infirmary, with a view to the removal to Highgate of all acute cases. They have, in the meantime, elected Dr. Claremont to take charge of the infirmary, at a salary of ten guineas per week.

THE shipping intelligence of the past week reports three vessels spoken at sea with cases of small-pox on board. Ships are now quarantined at Algoa Bay and the Cape for this disease, and much hindrance to commerce is of course the result.

AN entertainment was given to the patients at the Hospital for the Paralysed and Epileptic on Jan. 25th. These entertainments will take place every fortnight during the winter.

THE Waynflete Professorship of Chemistry at Oxford will, it is understood, shortly become vacant by the resignation, from ill-health, of Sir Benjamin Collins Brodie, Bart., M.A. The Professorship is worth £600 a year.

SIR W. STIRLING MAXWELL, Bart., will be installed on Monday next, at 2 P.M., as Lord Rector of the University of Edinburgh.

THE Indian Government offers a prize of 1000 rupees for the best Manual of Domestic Medicine for India; special regard being had to brevity and simplicity.

THE Jenner Memorial, about to be erected in the parish church at Berkeley, lacks (writes Lord Fitzhardinge to *The Times*) some £200 for its completion. The bare announcement should suffice to make all subsequent appeals unnecessary.

PROFESSOR BENNETT, of Edinburgh, has arrived at Mentone, where he will pass the winter under the care of his namesake, Dr. Henry Bennet.

Public Health.

HEALTH OF ENGLAND AND WALES IN THE DECEMBER QUARTER.

THE Registrar-General's Quarterly Return for the last three months of 1871 is characterised by more than the usual indications of our utter powerlessness to cope with disease under existing conditions, as regards sanitary epidemic law and sanitary organisation. We are now passing through the severest small-pox epidemic that has been known in this country for at least thirty years, probably for a period twice as long as that; and this has followed close upon the heels—so close as to be for some months co-existent—of an epidemic of scarlet fever almost as fatal as the famous epidemic of 1863. The deaths registered throughout England and Wales last quarter were equivalent to an annual mortality of 23·4 per 1000, the autumnal average rate being 22·1; and although the excess was no doubt partly due to the unusually severe weather in November and the beginning of December, it is evident that the widespread prevalence of zymotic disease was the principal cause of the high death-rate. The general view of the distribution of zymotic disease during last quarter, apart from the small-pox epidemic, the Registrar-General thinks "can scarcely be said to be satisfactory." Most people will think so too, we imagine. We shall come to the small-pox figures presently, but first let us look at the results for the other leading zymotics. To different forms of fever, principally enteric, 4692 deaths were ascribed last quarter, being an increase of 1330 upon those returned in the preceding three months; this increase was general, save in Nottinghamshire, where it was exceptional, the increase in that county being from 88 to 186. Scarlet fever caused 4498 deaths last quarter, against 3488 in the quarter before. Measles increased in fatality from 1688 to 3763; diphtheria, from 474 to 637; and whooping-cough, from 1845 to 2966. Then as to small-pox, the deaths numbered 6380, against 4612 in the previous three months; the total number of fatal cases in the year 1871 was 22,907, that is in the deplorably excessive ratio of 101 to every 100,000 of the population. The Registrar-General estimates that the "total preventable mortality" of last year amounted to no less than 128,170 deaths, as representing the excess over the standard healthy-district death-rate of 17 per 1000. Now, it may be Utopian to talk about reducing the death-rate of our large cities to the healthy-district level, but there are ten millions of the population living in small country towns and in rural districts whose death-rate last quarter was 19·5 per 1000; and, apart from our defective sanitary system, there is no earthly reason that we can see why the 25,000 lost lives represented by the excess of 2·5 per 1000 in the rural death-rate should not have been saved to the nation. Two striking illustrations are given in this return of the waste of life going on in rural districts, though the circumstance is not at all remarkable to anybody who has had experience of the miserably insanitary condition of nine out of ten of our "picturesque" country villages. The two registration sub-districts of Missenden and Chesham, "situated in the most picturesque part of Buckinghamshire," are so sparsely populated that there is an average of two acres and a half to every person; in Missenden the mortality last quarter was at the annual rate of 44, and in Chesham of 49 per 1000, in consequence of the prevalence of measles, scarlet

fever, and typhoid fever. There cannot be a moment's question that under proper sanitary arrangements the death-rate of these two sub-districts should not, and in all probability would not, exceed 17 per 1000. By all means let us do whatever lies in our power to stop the preventable mortality in the towns; but in their case the problem to be solved is far more complex than the rural sanitary reformer has to face, and necessarily the results must be slower in realisation. We cannot believe that after what has occurred of late another session will be allowed to pass without an attempt being made to provide an effective organisation for sanitary purposes in the rural districts, where, as the Registrar-General's Returns continually show, so urgent a need for it exists.

MEDICAL EXTRAS.

At a conference of Poor-law guardians held at Reading, at the invitation of Mr. Henley, Poor-law inspector, it was proposed, on the suggestion of the Local Government Board, "That as the recommendations of medical officers for meat and stimulants are regarded as equivalent to orders for additional relief, they should in all cases be accompanied by a report from the medical officer, setting forth the particulars of each case, ascertained by personal inquiry and examination of the pauper." Mr. Henley said that it sometimes happened that medical men were in the habit of recommending brandy, porter, and mutton, without seeing the patient at all. A guardian of the name of Goodlake proposed as an amendment, "That in all cases in which extras were required they should be had in the workhouse under a medical certificate that the pauper was fit for removal." The Rev. Mr. Stevens said his board, when their medical officer got rather free in prescribing extras, asked him to step into the board-room for a few moments, and gave him a lecture from which it was hoped he went away a wiser man. Happily the meeting had the good sense to reject the amendment.

We are not advocates for the practice of prescribing extras. If the guardians really did their duty, by giving adequate relief in cases of serious sickness and obvious destitution, the ordering of extras would be enormously reduced. It is a great pity that Mr. Henley did not point this out to the guardians. No doubt the medical officer ought to examine and report on each case; but, after all, it is the relieving officer's duty to make inquiries as to whether the pauper is or is not able to provide what is necessary, and to supply it when required. Some of the guardians stated that they systematically reduced the doctor's orders to one-fourth, a proceeding quite as reprehensible as ordering extras without seeing the patient, and yet it met with no remonstrance on the part of the inspector. It is well to note that throughout the discussion there was no appreciation whatever of the economy of curing sickness as rapidly as possible.

POOR-LAW INQUIRY AT ST. GEORGE'S-IN-THE-EAST.

The Local Government Board have verified the charges brought by Dr. Belcher against the master and matron of the St. George's-in-the-East Workhouse: first, of having diluted the wines and spirits ordered for the use of the sick; and, secondly, of not having performed their duties satisfactorily as regards the visitation of the several wards and departments of the workhouse and the superintendence of the workhouse stores. It is a pity that charges of this nature should have to be brought by the medical officer, for it is difficult to appreciate all his anxieties and obstacles. However, we congratulate Dr. Belcher on having succeeded in proving his case, and we have no doubt his orders in future will be faithfully observed.

HULL.

The Sanitary Committee have just issued their report. The annual mortality was at the rate of 23·0 per 1000—a slight improvement on previous years. The classes amongst which the greatest fatality occurred were those most regardless of cleanly habits and sanitary precautions. The town has suffered from three epidemics of small-pox in ten years, and the committee regret the prejudice which continues with many persons against vaccination. The committee deserve great credit for the promptitude with which they adopted precautions against the importation of Asiatic cholera, but they have incurred the disapproval of Mr. Simon by discontinuing the supervision. The committee observe with some force that the medical inspection of shipping is a matter of consequence to the whole country, and ought to be conducted at the public expense. The committee point out that the inhabitants of Hull are peculiarly exposed to diseases of the respiratory organs, and they direct attention to the aggravation of these disorders due to an atmosphere impregnated with smoke. The committee are not yet satisfied with the system of night-soil collection, though it is both more efficient and economical than in other large towns. We regret to observe that the committee are opposed to the appointment of a medical officer of health, and they boast that in Hull the want of such an officer has not been felt. Whilst admitting to the full the energy and ability of the Health Committee, we are of opinion that it would have been more correct to say that the committee have not experienced the advantage of such an officer. The work of the committee just stops short at the point where the services of a medical officer of health become most valuable. We trace in the report before us numerous errors both of fact and statistics—as, for example, in quoting Birmingham as having an officer of health, and in comparing the mortality from zymotic diseases with other towns, whilst there is no allusion whatever to those departments of sanitary administration which are entirely beyond the capacity of an ordinary inspector, and, indeed, of the very intelligent chairman of the Health Committee himself.

SANITARY COMMISSION IN PONTEFRACT.

In consequence of complaints having been made to the Local Goverment Board that the town was badly drained and insufficiently flushed with water, thereby causing the prevalence of zymotic disease, a Commission was sent down on the 24th ult. Abundant evidence was given that the present system of drainage was most defective, and the Commission stated it was clear that the corporation had not exercised its power in the matter.

SMALL-POX.

Plymouth.—During the week ending Jan. 26th, 90 fresh cases of small-pox, and 20 deaths from that disease, were officially registered at Plymouth, against 98 cases and 10 deaths in the previous week. Of the 20 deaths 18 occurred in private houses.

Devonport.—At this town the epidemic appears to be steadily decreasing, only 10 fresh cases being reported during the week ending Jan. 25th. There were 3 deaths. Since the opening of the hospital, 344 patients have been admitted, and 69 have died.

Stonehouse.—The hospital was opened on December 2nd. Since that time, up to Jan. 26th, 75 patients have been treated, and 4 only have died.

Camborne is said to be still suffering severely from small-pox.

Edinburgh.—The registered number of deaths from small-pox last week was 32. Since the opening of the Small-pox Hospital on Dec. 5th, 1871, 521 cases have been admitted, of which 89 have died and 225 have been dismissed cured. The number of patients at the hospital on the 28th ult. was 204.

THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

No. I.—INTRODUCTORY.

The primary object of appointing a medical officer of health is the general improvement of the public health. The power of appointing such an officer was given by the Public Health Act, 1848, and it is therein enacted that he must be a legally qualified medical practitioner, or a member of the medical profession—in other words, he must be registered as such. It is indeed obvious that the best training for the general duties of the medical profession is also the best training for the duties of an officer of health. Whilst, however, it is essential that every medical officer of health should be practically acquainted with the causes and treatment of disease, it is of equal consequence that he should have methodical and industrious habits, a wide and sound knowledge of general science, a thorough conscientiousness in the investigation and statement of facts, and great discretion in arranging them and in making deductions from them. His acquirements should be such as to command the respect of those with whom he has to act, and to

whom he must be prepared to give information and advice on every possible subject relating directly or indirectly to the public health. He should be in a position to meet the objections which are continually made by ignorant persons against necessary sanitary improvements, and he will seek to remove such objections without giving unnecessary personal offence. No matter how ignorant the members of a local board may be, an intelligent and judicious medical officer will soon be able to educate some of the better disposed, and convince them of the sound economy of sanitary improvements, and in time the leaven will give him a working majority. But even then the medical officer will be careful not to make himself the tool of a particular clique. He must be the organ of the whole board, and he had better not try to act unless he has the board with him. Without ceasing to maintain his own position and opinions, he must, nevertheless, respect the political principles involved. He must remember that no local authority can be compelled permanently to tax the community for matters the economy of which they cannot understand; and the medical officer who wishes to establish a really sound position will make it his first care and duty to satisfy his immediate employers and the public as to the reasonableness and true economy of the proposals he submits to them. The two great points upon which medical officers have failed, and the two great objections which have been urged against their appointment, are—first, that they are not much better informed than other persons on questions relating to the public health; and, secondly, their liability to excessive zeal. The first has arisen from the general neglect of the subject of public health at the medical schools, and the absence of any manual of the duties required, and the last from a desire to make matters perfect all at once. Social improvements can only be dealt with by degrees. They cannot advance much beyond public opinion, and the medical officer of health should avoid, above all things, the exercise of what appear to be arbitrary and compulsory proceedings, and should depend rather on the moral effect of sound teaching and judicious action. He should regard himself as a professor of sanitary science, engaged to teach first his employers and then the public, and his chief care should be that his teachings shall be sound. And as he convinces the majority, so will he firmly and consistently carry out his views, and thereby secure the respect and eventually the assistance also of the minority who formerly opposed him.

THE TATTOOED MAN AT VIENNA.

IN the *Wiener Medizinische Wochenschrift* for January 13th a full account is given of the tattooed man whose case has created such interest both in and out of Vienna.

This man states that he is an Albanian, forty years of age, and unmarried. Besides Greek—his native tongue—he speaks Arabic and Persian fluently, French, Spanish, Italian, German, and English, with various degrees of fluency and correctness.

His accounts of his life vary somewhat. According to one statement, he has been for the last five years engaged, together with eleven companions, in fortune-hunting, in the shape of working gold-mines in Chinese Tartary. During a rebellion which took place in that country, he supplied the rebels with arms; and, upon the defeat of the insurgents, was, with his companions, taken captive. Nine of the prisoners were put to death; the remaining three, including himself, were sentenced to the "punishment of tattooing," in order that they might ever hereafter go about as "marked men." One of the victims died, either in consequence of the severity of the operation or from disease; a second, blind, lives yet at Hong Kong; while the third, the subject of the present communication, managed to make his escape through China, to a port on the Indian Gulf. From thence an English ship brought him to Manilla, thence to Hong Kong, from which place he returned, *viâ* Suez, to Greece.

According to another account, he engaged, together with some Frenchmen, in hostile operations against the Chinese, by whom he was taken prisoner and tattooed. The operation was thus performed:—The victim was held fast by four strong men, his struggles being further quieted by threats of instant death, while for three successive hours daily, the artist—always the same man—worked away at him. In less than three months he was tattooed from head to foot.

When the man, who is of middle height and beautifully and strongly built, is stripped, it seems as though the whole of the body was tightly enveloped in a webbing (*Triest*) of richly-woven Turkish stuff. From the crown of his head to the tips of his toes he is covered with dark-blue figures of animals and plants, in the interspaces of which appear to be characters in blue and in cinnabar-red. The hands are tattooed on both surfaces, but only with inscriptions. The blue figures stop short at the insteps of the feet, but the tattooing is continued along the toes to the root of the nails in the form of red characters. Through the very hairs of the scalp and of the beard appear also designs in blue. On the forehead, one on either side, are two panthers, "regardant," as heralds would say, and separated in the middle line by red characters.

There are altogether on the body no less than 388 figures. All of these are of a blue colour, and represent apes, leopards, cats, tigers, eagles, crowned sphynxes, storks, swans, men, women, elephants, crocodiles, snakes, fish, lions, snails, fruit, leaves, flowers, bows, arrows, and quivers. Some of these are fairly done after nature; others are "conventionalised" (*stylisirt*). The inscriptions on the surfaces of the hands belong, according to Prof. Müller, to the language of Burmah. The man states that he has been in the region of this country. The skin is everywhere, even over the figures, smooth and supple, and, moreover, freely transpires. The figures and characters may be analysed into single blue or red points, of about the size of a pin's head, in the centre of each of which is a whitish, scar-like pit.

It appears extremely probable that the tattooing has been done with the juices of plants, and not with the usual agents—e.g., powdered charcoal or gunpowder for a blue colour, and cinnabar for a red; and for the following reasons. Bärensprung and Virchow have shown long ago that after tattooing with agents such as cinnabar, some of the particles remain entangled between the meshes of the true skin (corium), while those which find their way into the lymphatics are arrested at, and become encapsuled in, the nearest lymphatic glands. As the man will not submit to the removal of a small piece of his skin, the absence of the former of these conditions cannot be proved; but as the lymphatic glands are in no part of his body swollen, the absence of irritating particles may fairly be inferred. The instrument, moreover, with which he was tattooed, and which he has brought away with him, is split, like a steel pen, at the tip, so that fluid substances could easily be taken up by it.

The man has, of course, been photographed. Copies of parts of the body, of the natural size, will, however, appear in Part 8 of Professor Hebra's "Atlas." In a short time he will leave Vienna, it being his intention to visit other towns, among them Berlin and London.

FATALITY OF SMALL-POX VISITATIONS IN LONDON.

No one who has had an opportunity of perusing the evidence taken last year before the Select Committee on Vaccination can fail to have been struck by the desperate efforts of the anti-vaccinationists to prove their case by statistics. But, unfortunately for them, the Committee declined to accept their figures without question; and it was not unfrequently apparent that the statistical method of argument failed them in their utmost need—in truth, became a weapon wherewith their opponents smote them hip and thigh. It is not our intention to go over the wide statistical field involved in the evidence on either side, partly for the reason that certain essential data are not yet available. Our object now is to present some facts in reference to the visitations

of small-pox from which the metropolis has at various times suffered that appear to us worth the attention of our readers.

There is this obvious advantage in dealing with the vital statistics of London, that we have a long, unbroken series of authentic records concerning a population which, for all practical purposes of comparison, exhibits the same general characteristics throughout. A comparison of the present with the past in London is, therefore, free from those disturbing elements which are inseparable from a like process applied to all England in the aggregate, made up as it is of the extremes of variability in its component parts. This was a point urged with much force by Mr. Simon in his evidence, in reference to the absurd inferences which had been drawn from the general death-rate of the whole country as to the supposed evil effects of one single cause—vaccination. In London we have a homogeneous population of more than three millions, and the means of following week by week for thirty years the fatality of small-pox amongst that population. The value of such a series is at once and most strongly felt directly the inquirer wishes to extend his research into the pre-registration period, where he has to fall back upon the old bills of mortality, which, though imperfect, have enabled Dr. Farr, Dr. Seaton, Dr. Greenhow, and other competent analysts, to arrive at important conclusions with regard to small-pox visitations during the seventeenth and eighteenth centuries.

From these latter records Dr. Farr has deduced the following ratios of average annual deaths from small-pox, and from all causes, to 100,000 of the population, in six groups of years, within the metropolitan limits:—

Years.	Small-pox.	All causes.
1629–1635	180	5000
1660–1679	417	8000
1728–1757	426	5200
1771–1780	502	5000
1801–1810	204	2920
1831–1835	83	3200

An attempt was made by one of the witnesses before the Vaccination Committee to show that Dr. Farr considered the estimates of small-pox mortality in the pre-registration period to be worthless; but the absurdity of such a suggestion, in view of the fact that Dr. Farr had himself made and publicly used estimates of that nature, was so apparent that the Committee evidently did not think it necessary to call upon Dr. Farr for any explanation of this alleged contradiction. Besides, it is clear, as has been remarked by Mr. Simon, that the defectiveness of the data prior to 1838 operates entirely in one direction—namely, that of making the older times appear less unhealthy than they were, inasmuch as not all the deaths were recorded, but only such as came under the notice of the parish clerks for burial.

Coming now to the registration era, we are no longer obliged to follow somebody else's grouping of the facts, but have the means of showing for each of the years 1838 to 1871 the death-ratios from small-pox and from all causes to 100,000 of the population living in those years, according to the usual method of estimate:—

Year.	Deaths from Small-pox.	Deaths per 100,000 living. Small-pox.	All causes.	Year.	Deaths from Small-pox.	Deaths per 100,000 living. Small-pox.	All causes.
1838	3817	208	2876	1855	1024	40	2431
1839	634	34	2439	1856	522	20	2269
1840	1235	65	2408	1857	164	6	2241
1841	1053	54	2404	1858	247	9	2390
1842	360	18	2352	1859	1156	42	2269
1843	438	22	2466	1860	877	32	2240
1844	1804	87	2500	1861	215	8	2318
1845	909	43	2319	1862	345	12	2356
1846	257	12	2330	1863	2012	69	2447
1847	955	43	2695	1864	537	18	2653
1848	1617	72	2582	1865	646	22	2456
1849	518	23	3014	1866	1388	46	2648
1850	498	21	2104	1867	1332	43	2301
1851	1066	45	2338	1868	606	19	2360
1852	1166	48	2261	1869	273	9	2463
1853	217	9	2441	1870	958	30	2412
1854	676	27	2943	1871	7876	242	2465

It will be seen at a glance that these figures utterly dissipate the figment of imaginative statistics, attempted to be imposed upon the Vaccination Committee as an absolute rule, that "when small-pox is present the death-rate is low, when it is absent the death-rate is high." Indeed, what we may say with the nearest approach to certainty is that causes of larger magnitude than small-pox combine, as a rule, to mask the influence of that disease upon the general death-rate, and that the differentiation of the latter upon a scale commensurate with the complexity of the problem is one of the many matters which yet await the attention of our official statisticians.

That small-pox is nothing like so destructive now as it was formerly in London seems to be clearly made out; whether this is due to the influence of vaccination it is of course quite open to the anti-vaccinationists to disprove if they can. The net result of putting together all the experience hitherto acquired of small-pox fatality in London comes to this:—That the epidemic visitations have been less frequent, and relatively less disastrous in their effects, since the introduction of vaccination than prior thereto. Dr. Ballard, in his essay on Vaccination, shows that during the 154 years, 1650—1803, prior to the practice of vaccination, there were 118 years (or 77 per cent. of the whole) in which small-pox prevailed epidemically. We incline to think that this understates the case as regards epidemicity in the pre-vaccinal period, while in the comparison we are about to make it will be seen that we have gone almost to the verge of unfairness in reckoning the epidemic periods, inasmuch as we have included for each epidemic the full time during which the mortality was above the non-epidemic rate. In the second report of the Registrar-General five fatal cases of small-pox per week were given as the average for non-epidemic periods in London, the present equivalent being about 9 per week, taking increase of population into account. Upon this basis the following table has been constructed, which shows the duration and the absolute and relative fatality of the small-pox epidemics which have prevailed in London since the Registration Act came into operation:—

Periods.	Duration.	Total deaths.	Average annual deaths per 100,000 living.
1837–39	2 years	5061	138
1840–41	1¼ „	2220	65
1844–45	1¼ „	2531	80
1847–49	2¼ „	2831	56
1850–52	2 „	2349	49
1854–56	2¼ „	2148	31
1858–60	2 „	2077	38
1862–68	5¼ „	6574	38
1870–71	1½ „	8617	176

Thus it appears that in the 35 years during which vaccination has been partly permissive and partly compulsory, small-pox has prevailed epidemically in 21½ years, or 61 per cent. of the whole. Putting this result in comparison with that for the pre-vaccinal period, and notwithstanding the probability that the latter is much understated, the difference in point of frequency is considerably in favour of the vaccinal epoch. And spite of the heavy mortality of last year the small-pox death-rate since the passing of the first Vaccination Act in 1840, has averaged only 40 annually per 100,000 living—a striking contrast to those rates of 180, 204, 426, 502, which we have already quoted as occurring in the seventeenth and eighteenth centuries.

ROYAL COLLEGE OF PHYSICIANS.—At a meeting held last week, Drs. Quain, Barclay, Thompson, and Reynolds were elected to the vacancies in the Council created by the retirement in rotation of Drs. Bristowe, Cotton, Garrod, and Wilks. At the same meeting Dr. Blakiston gave notice of a motion to be considered at a future meeting, to the effect that the College should watch the progress of sanitary legislation during the coming session of Parliament.

THE annual Court of the Governors of the German Hospital was held on Tuesday. The number of in-patients received during the past year had been 1200, and out of this number 213 were cases of accident. During the same period there had been 16,247 out-patients. The expenditure was stated to be about £6000 per annum.

Correspondence.

"Audi alteram partem."

COLD WATER TREATMENT OF FEVERS.

[SECOND LETTER.]

To the Editor of THE LANCET.

SIR,—If the asserted physiological actions of the wet-sheet packing can be maintained, then its practical value is quite equal to its theoretical soundness; and, in point of fact, certain conditions of the diseased body are modified by it in a very intelligible and salutary manner. Ample experiment has determined this process to be a therapeutic resource of no mean power—as a febrifuge or antiphlogistic, a sedative or anodyne, a diaphoretic or revulsive from the interior, and perhaps also a depuratory or eliminating agent.

With these curative pretensions, it is applicable—and has been successfully applied—to an extensive range of diseased conditions; that is to say, wherever the indication is to abstract morbid heat, to slacken and equalise the circulation, to promote exhalation and excretion, to soak the skin, to empty and cleanse its capillaries, to soothe its sentient extremities, to disgorge congested vital viscera, to break up and carry off unhealthy tissue or deposit, &c. To prove how much the struggling powers of the organism have been liberated from obstructions, we have a spontaneous perspiration usually crowning the series of physiological actions in question. This gives the fillip to conquering nature, and constitutes the prayed-for *crisis* that, in early and uncomplicated cases, solves the disease.

It is not the least recommendation of this too long despised resource of curative art that it is a simple remedy, easy to be managed, entailing little loss of strength, and certainly none of the debility induced by the old "heroic" measures of reduction in fever. So far it favours a rapid convalescence, which is the characteristic of its cures. But the best measures may be mischievous by maladministration. To guard, therefore, from abuse and mishap an otherwise valuable remedy, I shall now give the suggestions of experience as so many rules and precautions to render the practice as safe as it is efficient.

1st. As to the method of packing. On the mattress of a bed (hair, wool, or straw), with a sufficient number of pillows spread two thick blankets. A sheet wrung out of cold or tepid water is then placed smoothly over the blankets. On this the patient is laid down, and is closely, but not tightly, enveloped from chin to toes. The under blankets are now adroitly drawn round the body and well tucked in on each side. One, two, or more pairs of blankets, with an eider-down quilt, are separately spread and adjusted in the same way. The season of the year, the strength of the patient, the violence of the symptoms, &c., will determine the more or less of this sort of hermetical investiture in non-conducting materials. The sheet should not be too large, and should not be in excess about the feet. The neck must be especially well guarded, for this is the *janua vitæ*, and too often the entrance of death in cold weather, or in draughty rooms. A woollen shawl or small blanket extra should be well tucked in under the chin, and around the back of the neck. But while seeing on the one hand that this important portal is not left open to the enemy, care must be taken, on the other hand, that the sufferer be not *throttled*, an accident I have known well-nigh happening. The patient is best laid flat on his back; circumstances sometimes require the semi-recumbent position, or that he be reclined on one side. Occasionally some nervous or recalcitrant subjects will insist on having their arms out. This packing is not undone so long as the patient expresses soothing or relief—so long as the heat, and pulse, and fever are abated. But the thermometer in the mouth is the unfailing criterion when to undo; and when, and how long to reapply the wet sheet. In sudden and intense cases of fever, uncomplicated, I have repeated the packing eight or ten times consecutively; changing as often as every quarter of an hour, every half hour, and then every hour. But at the end of this mortal conflict the morbid phenomena were completely quelled, without return—the disease *jugulé*, as Monsieur Bouillaud would say. In fact, till the heat and pulse are effectually lowered, the excitation and malaise gone, the indication is to repeat the process—to unpack and apply fresh wrung sheets. When this end is gained, whether it be in the first, second, third, or tenth packing, the cold, or chilled, or tepid shallow bath is used for two or three minutes. This is the unfailing sequel, and indispensable finish of the packing process, and is approved and relished by the patient as alike refreshing, tonifying, and cleansing. He is now well dried, with a large, piping hot sheet wrapped around him, and as much friction is applied as he can bear. A fresh made bed must always be ready for his reception; and then and there ensues a delicious sense of coolness, repose, and calm. Very often the desired critical perspiration now breaks forth, when it has not done so in the sheet. This must be allowed to run its course free for hours, or even half a day, till, in short, it either ceases spontaneously or the patient shows signs of being weakened by it. When this crisis occurs in the wet sheet, on no account must the patient be liberated from it till it has done its work. In cases where it is necessary to evacuate the bowels or bladder, the packings must be merely loosened, and a bed-pan introduced. On quitting the sheet the shallow bath is the only protection against a chill.

2nd. To make this a cautious and discreet measure, it behoves well to consider the indications as to the *dose* requisite; for, be assured, its quantity and quality can be as accurately measured as the *dose* of any drug. The thermometer, however, is the grand regulator of the duration of each packing, and of the frequency of its repetition. But not only must the temperature and the pulse be consulted, but the dryness or moisture of the skin, the state of the brain, of the heart and lungs, of the digestive and pelvic viscera, must all be interrogated, to determine the fitting time and degree of this grand therapeutic measure.

3rd. If in the packing symptoms of oppression of the head occur—a frequent consequence of the return of morbid heat, and also a harbinger of the coming perspiration—then a light, wet linen compress (say a table napkin) to the head is all that is required. This must be well wrung out, and not needlessly applied, for the fear now is that the *nimia diligentia* may operate to perturb, or check, or deviate the spontaneous relief nature is about to effect by her own opening of the excretory outlets.

4th. It is unnecessary here to insist on repose of body and mind for the patient, on perfect quietude in the chamber, on thorough ventilation, and a fire if the weather be damp or cold.

5th. The wet-sheet packing is *contra-indicated* in fever whenever the signs of great debility are present; when the pulse is feeble, the skin cold, the perspiration clammy, the vital viscera congested—when, in short, we have decided *typhoid* phenomena to deal with. *But we have another grand resource often to turn the scale in this losing battle. We wring a blanket out of hot water and pack the patient in this instead of the sheet.* But here a large mackintosh sheet is first laid on the mattress, and the three or four thicknesses of blanket are encased in this impermeable covering. The result is a steam bath *presto*, and a gentle and genial perspiration where the vital heat seemed fleeing away for ever. I applied this first twenty-five years ago to a young lady in the last stage of consumption, with a large vomica in one lung. From that moment she began to recover, and got quite well. In a very exhausted moribund subject with great visceral lesions, I *stuff a warm bath full of blankets and pillows and immerse the patient therein for half an hour perhaps*, cooling down the bath the last few minutes from 97° to 80° or even 70° by degrees.

I am, Sir, your obedient servant,

Sheffield, 1871. JOHN BALBIRNIE, M.A., M.D.

P.S.—I should have added in its place, that in cases of overmastering heat, and speedy drying of the wet sheet, the best mode of reduction, and that which saves alike the strength of the patient, is to undo the wrappings *without taking out the patient*. He is raised from the sheet for a moment and iced water sprinkled under him; enveloped again, *pounded ice is spread over the sheet*, and the packing then completed.

THE PLEA OF INSANITY.

To the Editor of THE LANCET.

SIR,—In confirmation of the able article of Dr. Forbes Winslow in your last number, relative to the insanity of Watson and Edmunds, I forward you a somewhat unique case that occurred at Huntingdon some time since.

Charles Burton, aged forty-five, labourer, Stilton, was tried at the July Assizes, 1848, for the murder of his wife and child by cutting their throats—he attempting unsuccessfully the same upon himself. On an investigation of the case I had no hesitation in coming to the conclusion that he was insane at the time, and that the letting of blood from himself restored his reason. I was very strongly confirmed in this opinion by the gaoler, a very intelligent and experienced officer, and by the chaplain of the gaol. The counsel of the prisoner was instructed to put in this plea, but for some reason he did not do so. Burton was found guilty and sentenced to be hanged. A strong representation was made to the judge, Baron Parke, and he directed the under-sheriff, G. G. Day, Esq., to investigate the matter. He did so, and sufficient evidence was placed before the judge for him to respite the prisoner, with this very singular but very proper order that the prisoner should be tried again at the March Assizes, 1849, upon the second indictment—the murder of his child. The trial came on before Chief Baron Pollock. The plea of insanity was put in successfully. Burton was acquitted on the ground of insanity. He was detained in the county gaol of Huntingdon, and in the course of a few months became a raving maniac; as such he was conveyed to Bedford Lunatic Asylum, and soon died there.

Nothing could be more satisfactory to us who took part in this case, not only in the very legitimate mode of deducing the presence of insanity before the judge, but also in the sad and mournful issue. I quite feel with Dr. Winslow that it may not be unlikely something of the same sort may appear in the case of Watson.

I am, Sir, your obedient servant,

Huntingdon, Jan. 29th, 1872. M. FOSTER, F.R.C.S.

THE NATIONAL THANKSGIVING.

To the Editor of THE LANCET.

SIR,—You well know that most of our hospitals and infirmaries labour under a chronic state of poverty. "Hospital Sunday" prospers in the provinces, but fails in the metropolis.

In St. Paul's Cathedral will shortly be assembled the wealth, piety, and learning of the land to render thanks for the recovery of H.R.H. the Prince of Wales. Thousands would testify their gratitude by a thanks-offering on that occasion to those noble institutions seeking to save life and assuage pain; constantly struggling in their merciful mission for "want of funds."

Generous souls throughout the kingdom would reflect on past sickness and recovery, and send their mite, conferring a boon on our unendowed hospitals and infirmaries, and rendering giver and receiver glad alike.

The Prince has already indicated such a course by paying over a handsome donation from an Indian gentleman to a poor hospital, and Her Majesty the Queen is constantly sending game, &c., to such places.

May I beg your able advocacy for the "Hospital Sunday" movement, and not to cease till it is an accomplished fact.

I am, Sir, yours truly,

Great Coram-st., Russell-sq., Jan. 29th, 1872. GEORGE REID.

THE CHELSEA HOSPITAL FOR WOMEN.

To the Editor of THE LANCET.

SIR,—I beg to call your attention to the enclosed circular respecting this institution, and at the same time to express my regret that the medical men of this neighbourhood have such a tendency to rush into new ones of this description when "they are not required." In 1851 there were three dispensaries in Pimlico and Chelsea; since then five others have been started; now another is required, we are told.

Does it not seem strange that the medical men here are so anxious to immortalise themselves individually, instead of uniting together and placing one of the said institutions in good working order—rather than try to keep up so many establishments by the disgraceful methods of puffing resorted to—viz., by placarding the walls of the neighbourhood and sensational articles in the daily papers.

I must enter my protest against such proceedings. We have now three hospitals close at hand, fully competent to deal with all the cases requiring charitable assistance. Why, then, should so many others be kept up to the injury of the general practitioner, and for no other reasons than the sake of notoriety of the parties connected with them, and special use of the subscribers' servant?

I am, Sir, yours obediently,

Eccleston-street, Pimlico, Jan. 10th, 1872. O. E. P. CHARD.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 25th and 26th ult.:—

Bethell, Alfred, L.S.A., Pilton, Somerset.
Bland, George, L.S.A., Gerrard-street, Islington.
Cartwright, Henry Gordon, Burton-on-Trent.
Cawley, Thomas, Great Yarmouth.
Fordham, John William, L.R.C.P. Edin., Stepney.
Foster, William James, Birmingham.
Griffith, Richard Glyn, Bangor, North Wales.
Hamilton, Alexander M. S., M.D. Queen's Univ. Irel., Ballymoney, Co. Antrim.
Magrath, John, L.S.A., Forest-row, East Grinstead.
Matcham, Alfred, L.R.C.P. Edin., Lowestoft.
Moore, Arthur Jackson, L.S.A., Debenham, Suffolk.
Murdoch, Donald, L.S.A., Rotherhithe.
Newman, Alfred Kingcombe, Hawk's Bay, New Zealand.
Oldham, Charles Edmund, B.A. Cantab., Cambridge.
Pitt, Isaac, L.R.C.P. Edin., Birmingham.
Palmer, Ambrose Myrie, Clapham.
Popham, Francis W. H., L.S.A., Gawler, South Australia.
Rendall, William, L.S.A., Maiden Newton, Dorchester.
Ross, W. Graham, M.D. M'Gill Coll. Montreal, Ontario, Canada.
Russell, Ebenezer Geer, L.S.A., Pool, Cornwall.
Skaife, Frederick, L.R.C.P. Edin., Easingwold, Yorks.
Steele, Edward Henry, L.S.A., Dorchester.
Stokes, Henry Haldane, M.B. Dub., Tralee, Co. Kerry.
Wade, Reginald, L.S.A., Cross, Somersetshire.
Wallace, Thomas, M.D. Queen's Univ. Irel., Cardiff.
Ward, Walter Alfred, L.S.A., Notting-hill.
Weatherhead, John Fraser, L.S.A., Holloway.
Williams, Alfred Henry, M.B. Aberd., Brixton.

Of the ninety-two candidates examined on Jan. 23rd, 24th, 25th, and 26th, twenty-two failed to satisfy the Court, and were referred for a period of six months to further professional study.

The following are the names of the candidates who were successful at the recent Preliminary Examination in general knowledge for the Fellowship of the College of Surgeons:—

1. Adams, C. C. Beddoes, J. F. F. Barnes, W. H. Bennett, P. H. Benson, C. de L. Brock, W. H. Besant, C. R. Bonsall, H. C. Burton, R. Carter, A. S. Eccles, G. C. Evans, R. Edwards, H. E. Friend, J. F. Dixon, A. W. Galloway, F. M. Granger, P. de H. Haig, W. S. A. Griffith, W. C. Hansell, A. C. Brock, F. J. Hawkes, G. G. Hodgson, A. C. James, A. F. Hawkins, W. B. Johnson, M. M. Hill, W. D'Anson, A. G. Lacey, H. Munro, H. A. Nicholls, C. W. Owen, J. W. C. Merriman, J. Mackenzie, F. T. Paul, H. W. Moore, E. J. M. Phillips, R. C. Revell, H. P. Payne, J. R. Ross, T. Richards, G. D. Thorne, A. A. Page, H. A. Speed, W. Tarrant, E. Trediannick, J. M'D. Tudge, A. P. Russell, A. A. Thomas, O. Vincent, W. C. Ward, W. L. Webber, H. F. Weiss, G. E. Wherry, E. W. Whitlock, W. H. Cripps, W. C. James, A. H. Young, H. G. Shaw, E. P. Apthorp, W. J. Candler, C. P. B. Clubbe.

The following candidates were successful at the Preliminary Examination for the Membership:—

C. J. Addison, E. W. Alden, A. R. Anderson, W. Armstrong, W. J. Athey, J. E. Andrews, J. A. Baber, A. J. Bailey, D. S. E. Bain, J. D. Astley, J. H. J. Baillie, W. E. L. Batty, W. M. Ball, H. J. L. Bennett, M. L. Bell, G. H. Barton, W. Blakie, T. F. I. Blaker, J. G. Blackman, G. V. Burd, R. Bruce, St. J. C. Bennett, L. B. Calcott, S. Caffyn, J. L. Poynder, H. Castle, W. F. Chadwick, F. W. Cleveland, W. A. Christie, G. E. Coleman, P. Cooper, W. H. Clarke, J. W. Collington, C. R. Crane, C. C. Crippe, H. P. Dunn, A. C. Parker, H. B. S. Carll, A. K. Dresser, E. D. Farmer, T. Fisher, F. S. Eve, L. W. Fox, H. Gascoigne, E. H. Field, W. E. Godfrey, W. P. Feltham, S. C. Harris, R. Heald, A. Hurding, J. C. L. Hains, J. G. Harries, R. A. H. Hart, E. S. Hawkes, J. H. Houghton, E. Hicks, H. G. Hicks, H. G. P. Jones, W. D. Jefferson, F. A. Jeans, E. Judkins, P. S. Kendale, H. R. Kelham, A. Kidd, E. T. Lewin, D. G. Lewis, J. S. Lush, T. T. Logan, H. W. M. Macdonald, W. A. Marsh, C. E. B. Maile, C. R. S. Mason, W. S. Merriman, C. F. Middleton, G. R. Moore, W. Morgan, W. H. Neilson, S. W. Nockolds, G. N. Parker, L. Potts, H. Pullon, E. T. Prior, A. J. Popert, F. J. Pound, W. J. W.

Proffit, A. Rees, A. G. E. Raitt, R. T. Richardson, W. S. Roberts, J. Ritchie, E. M. Rodwell, J. B. Rusher, C. A. Stalkeld, C. W. Sharples, M. A. Smale, E. G. C. Snell, D. H. Thomas, J. Spofforth, C. A. Stacpoole, F. C. Treadgold, P. Tarleton, H. T. B. Tribe, J. A. Vasey, R. L. Stokes, E. J. Thompson, W. P. Turner, C. C. Jones, W. A. S. Walsh, E. W. Walter, P. E. Wallis, G. S. Ward, C. W. Whistler, W. P. Whitcombe, H. Wickham, A. T. Winn, R. G. E. Willows, J. F. Woods, J. K. Womersley, J. L. Wild, H. A. K. Wright, W. T. Wilson, P. M. Wood, G. J. Laylor, J. Telford, W. A Lewis, S. W. Vasey, C. A. S. Ling, T. F. W. Richardson, L. E. Florigny, F. W. Cleveland, J. D. Evans, J. Heelas, and D. A. Coles.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 25th:—

Clague, John, Isle of Man.
Hawthorn, William Thomas, Uttoxeter.

As Assistant in Compounding and Dispensing Medicines:—

Harry, Seth, Holsworthy.

On the same day the following gentleman passed his First Professional Examination:—

Spurgin, William Henry, Guy's Hospital.

At the Preliminary Examination in Arts held at the Hall of the Society on January 26th and 27th, fifty-six candidates presented themselves, of whom nineteen were rejected, and the following thirty-seven passed and received certificates of proficiency in general education:—

FIRST CLASS (in order of merit). — 1. John Manley. 2. Frederick de Caux. 3. Henry Thomas Batchelor. 4. James Francis Henry Bottrell and Ernest William Livesey. 6. Alfred George Bernard, Charles William Gay, and Joseph Hampson. 9. James Harris Lilley.

SECOND CLASS (in alphabetical order). — F. C. Anderson, Fredk. Baldwin, Harold W. Banfield, Alfred St. Clair Baxton, John Hague Clegg, Harold Davenport, Hubert M. Floyer, Herbert Arthur Glynn, John Thomas Gordeller, William Gibbs Gordeller, Alfred Pierce Green, William John Haines, Hudson Hairsine, Alfred Headland, David Arthur Hughes, James D. W. L. Hustler, E. Fortescue Ingram, Frederick Geo. Munns, Harold Lewis Palmer, Douglas Clifford Pease, Fredk. Hamilton Peck, Henry Peskett, Philip William Simpson, Herbert W. Thomson, Alice Vickery, William Walker, Francis D. W. Wheaton, Alfred T. Tucker Wise.

ROYAL COLLEGE OF SURGEONS OF IRELAND. — At the quarterly examination held on Jan. 23rd, 24th, and 25th, the following gentlemen obtained the licence to practise Surgery:—

Nicholas Atkin, Robert Baxter, Valentine Brown, Arthur Clarke, Christopher Elliott, Thomas Elliott, William Elliott, Francis Flood, Thomas Heath, Henry Hillis, John Irvine, Thomas J. Kelly, Wm. L. Mackesy, Hamilton Macmullen, Robt. Magill, Chas. Magrane, Myles M'Swiney, Lyster A. Nolan, Fredk. Pope, John W. Scarry, William Smyly, Henry Tweedy, William M. Whittaker, Stewart Woodward.

HER MAJESTY THE QUEEN has during the last fortnight sent presents of game to most of the metropolitan hospitals.

SIR SAMUEL BAKER was last heard of at Gondokoro, on the White Nile, which he had reached with great difficulty.

MR. JOHN WALTER, M.P., has consented to preside at the annual festival of the Hospital for Sick Children, which is to be held at Willis's Rooms on February 7th.

THE annual meeting of the supporters of the Edinburgh Royal Dispensary was held on the 27th ult., when it appeared that during the past year the number of patients treated had been 11,739.

THE treasurer of St. George's Hospital has received a donation of £5 from "An Old Subscriber," as a thank-offering for the recovery of the Prince of Wales.

CORALLINE.—M. Tabourin ("Acad. of Med.," Dec. 26th, 1871) states that this substance, as found in trade, is harmless. It may be used by dyers without danger, provided it is fixed on the materials by substances free from toxic properties.

DR. HARVEY, of Killea Dispensary District, after forty years' connexion as medical officer with that union, has been unanimously voted a superannuation allowance by the Board of Guardians equivalent to two-thirds of his salary, the maximum allowed by the Superannuation Act.

A MEETING of the Association of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Thursday, the 18th inst., at 7.30 P.M., when a paper will be read by Mr. Wm. Acton on the question "Whether the Contagious Diseases Acts shall be Repealed, Continued, or Extended to the General Population? founded on the minutes of evidence lately given before the Royal Commission."

Medical Appointments.

ABLETT, F., M.D., M.R.C.S.E., has been appointed Surgeon to the Whitehaven and West Cumberland Infirmary.

CARTER, R. C., L.R.C.S.I., has been elected Medical Officer for the Kilcullen Dispensary District of the Naas Union, Co. Kildare, vice A. D. Henry, M.B., L.R.C.S.I., resigned.

CONNOLLY, P., L.K.Q.C.P.I., L.R.C.S.I., has been elected Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Multyfarnham Dispensary District of the Mullingar Union, Co. Westmeath, vice Pelles, resigned.

FLEETWOOD, W. J., L.R.C.S.I., L.K.Q.C.P.I., has been appointed Visiting Surgeon to the General Infirmary, Chester, vice J. L. Roberts, M.B., C.M., resigned.

JARDINE, J. B., M.D., L.R.C.S.Ed., has been appointed Medical Officer of Health for Chatham, Assistant Visiting Surgeon for Chatham, Maidstone, and Gravesend, under the provisions of the Contagious Diseases Acts; and Assistant Medical Officer of the Lock Hospital, Chatham.

KELLY, R. W., L.K.Q.C.P.I., L.R.C.S.I., has been elected Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Ballindine District of the Claremorris Union, Co. Mayo, vice C. E. Crean, L.K.Q.C.P.I., L.R.C.S.I., resigned.

KEMPSTER, W. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Eastern District of the Parish of Battersea, vice W. Goodson, L.S.A.L., resigned.

LEE, R. J., M.D., has been appointed a Physician-Accoucheur to the St. George Dispensary, Mount-street.

MARSHALL, J., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Visiting Surgeon for Canterbury and Dover, under the provisions of the Contagious Diseases Acts (Women), vice J. W. Howard, M.R.C.S.E., resigned.

MORRILL, J. S., F.R.C.S.E., L.R.C.P.L., has been elected Medical Officer and Public Vaccinator for the Eastern District of the Christchurch Union, vice J. H. Cartwright, M.R.C.S.E., resigned.

O'CONNOR, A. D., M.D., C.M., has been appointed Medical Office, Public Vaccinator, and Registrar of Births &c., for the Blackrock Sub-district of the Cork Dispensary District, Cork Union, vice O'Sullivan, appointed to the Bishopstown Sub-district.

O'SULLIVAN, S., M.D., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Bishopstown Sub-district of the Cork Dispensary District, Cork Union, vice J. D. O'Flynn, M.D., L.F.P. & S. Glas., deceased.

PARSONS, F. J. C., L.R.C.P.L., M.R.C.S.E., has been elected a Medical Officer to the Bridgwater Infirmary, vice W. H. Axford, M.B., M.R.C.S.E., resigned.

SEWELL, A., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant Medical Officer to the Metropolitan Asylum District Small-pox Hospital, Stockwell, vice P. H. M. Mackellar, M.B., C.M., appointed Resident Medical Superintendent of the Fever Hospital.

SMITH, J. C., L.R.C.P.Ed., has been appointed Medical Officer for the Burton District of the Kendal Union.

STRATHY, F. R. L., M.D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Physician to the Royal Hospital for Sick Children, Edinburgh, vice R. W. Dodds, M.B., C.M., whose term of office has expired.

SUMMERHAYES, W., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for District No. 3 of the Norwich Union, vice Woodhouse, appointed to District No. 5.

SWEENIE, W. F., M.B., L.R.C.S.Ed., L.M., has been appointed Medical Officer and Public Vaccinator for the Killea Dispensary District of the Londonderry Union, vice J. Harvey, M.D., resigned.

WALLER, W. A. E., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer to the Royal United Hospital, Bath, vice R. A. Busby, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On the 4th ult., at The Castle, Annotto Bay, Jamaica, the wife of Myrry Clarke, J.P., M.R.C.S.E., of a daughter.

RASCH.—On the 28th ult., at South-street, Finsbury, the wife of Adolph Rasch, M.D., of a daughter.

RUDALL.—On the 18th of November last, at Collin's-street East, Melbourne, Australia, the wife of James T. Rudall, F.R.C.S., of a son.

SMITH.—On the 29th ult., at William-street, Regent's-park, the wife of Walter Smith, L.R.C.P., M.R.C.S., of a son, still-born.

TRAVERS.—On the 24th ult., at Kensington, the wife of Dr. Travers, of a son.

MARRIAGES.

LACEY—KIRBELL.—On the 31st ult., at St. Michael's Church, Chenies, Bucks, Thomas Warner Lacey, L.R.C.P.L., M.R.C.S.E., of Plumstead, Kent, to Sarah Anne (Daisy), youngest daughter of Mr. Edward Kirbell, of The Dell, Latimer, Bucks.

WALKER—ROUGIER.—On the 30th ult., at St. John's Church, Lancaster, Samuel Walker, M.R.C.S.E., of Middlesbro'-on-Tees, to Emily Tymms, second daughter of the late Wm. Rougier, Esq., of York.

DEATHS.

BAIRD.—On the 27th ult., at Burlington-road, Westbourne-park, Wm. Baird, M.D., F.R.S., of the British Museum, aged 69.

DAY.—On the 31st ult., at Andersey, Torquay, George Edward Day, M.D., F.R.C.P., F.R.S., late Chandos Professor of Medicine in the University of St. Andrews, aged 56. Friends will please accept this intimation.

GRANT.—On the 18th ult., suddenly, at Manchester-road, Poplar, B. J. M. Grant, M.R.C.S.E., Certifying Factory Surgeon and Divisional Police Surgeon, aged 37.

LAMPARD.—On the 30th ult., Jacob Lampard, M.R.C.S.E., of Neyland, South Wales, aged 67.

PROCTER.—On the 18th ult., at The Marsh, Wistanstow, Thos. B. Procter, M.D., aged 71.

Medical Diary of the Week.

Monday, Feb. 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. General Monthly Meeting.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures. Dr. S. O. Habershon, "On the Pathology and Treatment of some Diseases of the Liver." Lecture III.: The Bile and the Bile-ducts.

Tuesday, Feb. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. W. Rutherford, "On the Circulatory and Nervous Systems."
PATHOLOGICAL SOCIETY OF LONDON.—8 P.M. The following Specimens will be exhibited:—Fibro-Cystic Tumour of the Lower Jaw; Aneurism of the Aorta Perforated by a Fractured Rib, and associated with Embolism of the Middle Cerebral Artery; Biliary Calculus; Madura Foot; Subacute Yellow Atrophy of the Liver; Expansion and Softening of Small Grey Tubercle; Congenital Occlusion of the Hepatic Ducts; Embolism and Softening of the Left Anterior Cerebral Lobe; Aphasia; &c. &c.

Wednesday, Feb. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
HUNTERIAN SOCIETY.—7 P.M. Annual Meeting for Election of Officers.—8 P.M. Annual Oration, by Dr. Hughlings Jackson.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Annual Meeting.—Dr. Phillips, "On Retroflexion of the Uterus as a frequent Cause of Abortion."—Dr. Bantock, "On the Use of the Sponge Tent in Menorrhagia."—And other papers.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Anniversary Meeting.

Thursday, Feb. 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On the Chemistry of Alkalies and Alkali Manufacture."

Friday, Feb. 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
QUEKETT MICROSCOPICAL CLUB.—8 P.M.
HUNTERIAN SOCIETY.—The Annual Dinner will be held at the Albion Tavern at 6 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Adjourned Discussion on Mr. Cooper Forster's paper, "On the Treatment of Popliteal Aneurism."—Mr. Hulke, "On the Therapeutic Value of Condurango as a reputed Cure for Cancer."—Mr. De Morgan: A supplemental paper on the same subject.—Mr. Bryant, "On Two Cases of Recto-Vesical Fistula successfully treated by Colotomy."
ROYAL INSTITUTION.—9 P.M. Prof. Humphry, "On Sleep."

Saturday, Feb. 10.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Wm. B. Donné, "On the Theatre in Shakespeare's Time."

Notes, Short Comments, and Answers to Correspondents.

THE THAMES SHIPPING INSPECTION COMMITTEE.

A LONG paragraph appeared some four days ago in most of the daily journals that detailed the rise, progress, and (we may be permitted to say) decline of this Committee, which was forced into existence by the persevering efforts of the Medical Department of the Local Government Board, and which now presents to the public an elaborate epitome of the little its members have managed to accomplish in the short space of six months! They have made arrangements with a medical adviser and superintendent, who is to be engaged "immediately on the appearance of cholera in the Thames or in the metropolis." They report that the *Rhin* can be placed at their disposal by the Admiralty "at any moment," and it is also declared that the Thames Conservators will moor any hospital-ship that the Committee might place in the river. All this is praiseworthy enough, and we cannot say that, with sixteen local authorities, these conclusions have not been arrived at without some considerable difficulty. But we take leave very confidently to doubt whether the future medical adviser will, at any moment, be able to conjure assistants from the vasty deep (or from anywhere else), and it would be as well to know whether the Committee have inspected the *Rhin*, as she now lies at moorings in the Medway, and, if so, whether they consider her fit for the reception of cholera patients. And, lastly, why is no mention made of the old *Dreadnought*? We are aware that she is now held by the Metropolitan Asylums Board; but inasmuch as it was agreed that all cases of cholera occurring in the port should be received there, we are at a loss to know why the ship is utterly ignored. We shall await the advent of the Report with great interest; for its synopsis appears to be of a particularly unsatisfactory character. It is possible that the present aspect of affairs may induce Mr. Stansfeld to make the port of London a distinct sanitary district.

Mr. B. H. Eales.—The doggerel verses are so bad as to be beneath notice.

THE HONOUR OF THE MEDICAL PROFESSION: OPEN SURGERIES: HOSPITAL OUT-PATIENTS: PROVIDENT DISPENSARIES.

To the Editor of THE LANCET.

SIR,—Many of your readers, I have no doubt, turn to the last pages of THE LANCET to read its correspondence before they settle down to the more scientific work which precedes it; and I think this is only natural, as no part of your journal represents the feelings of the profession so accurately as the "correspondence." Still its revelations might well astound a stranger, who might naturally wish to inquire what object we possibly can have not only to wash our dirty linen in front of our hall-door, but also to dry it on lines which span the thoroughfare which our brass-plate adorns.

Your correspondent, "R. H. L." objects strongly to open surgeries, saying "they are undignified," and his censure, I suppose, indicates that we might easily do away with them. But what will he substitute? There is a large, respectable, and hard-working population, earning from 20*s.* to 40*s.* a week, who are subject to illness. It is idle to say these people can afford to pay a doctor's bill of £6 to £7, and yet they must be attended. The husband we graciously attend in the shape of a club member. But what is to become of the rest? The open surgery of the doctor, who supplies a bottle of medicine across the counter for thirteenpence halfpenny is a good substitute, and surely "R. H. L." does not think that such advice is not better than that of the chemist or quack. The demand being there, it is but natural that the supply should follow.

The demand for cheap and good medical advice is again instanced by the state of our hospital out-patient rooms. Nobody who has any experience of the class of people who form our out-patients at the metropolitan hospitals can deny that if those people could only obtain proper advice *within the scope of their means* they would not trouble about obtaining the superior advice which is often tendered at those "halls of wisdom" by students, beardless youths, whose clinical experience dates from the dissecting-room.

The red bottles of the "family" chemist, the open surgery of the qualified practitioner, the crowded out-patients' room, and the sixpenny dispensary of the herbalist, all point to one thing—*the urgent need of proper advice to the poor at a rate of payment which they can afford.* Till that is obtained, these things will exist, and you might as well attempt to suppress them as to heal up a sinus while the dead bone at the bottom remains unremoved.

I venture to point to the provident dispensary as the only remedy against this trouble. If "R. H. L." would work at this object, he would raise the profession and benefit the poor. But, Sir, it is from *our* profession that these institutions have received the worst treatment; and is it to be wondered at that, if they are not allowed to grow, we should find open surgeries, family chemists, and quacks. Which of these contributes more to our dignity, and makes ours a profession of which the members may be raised to the Peerage, the Privy Council, or even to the Presidency of the Poor-law Board?

I am, Sir, your obedient servant,

Camden-road, January, 1872. J. DE LIEFDE.

G. C. S. will find the Anatomical and Physiological papers for the F.R.C.S. examinations, with remarks thereupon, in THE LANCET of May 27th and November 25th, 1871. The surgical papers were not published in THE LANCET; but specimens will be found in each annual College Calendar, price one shilling.

An Intending Candidate.—A new edition (the sixth) of Aitken's Science and Practice of Medicine has just been published. It is unquestionably an excellent work, and our correspondent will find, we think, no book of the kind so full of the sort of information that he requires.

THE communication of *Dr. Miller* (Dundee) shall be inserted in our next.

PLEASANT FOR LONDON WATER-CONSUMERS!

DR. FRANKLAND, in his Report to the Registrar-General on the quality of the water supplied to the metropolis during the last month, calls attention to facts which, in his opinion, strikingly illustrate the unsuitability for domestic purposes of water derived from rivers flowing past highly manured lands, and receiving in their course a large amount of sewage. During the whole of the month the Thames was in a state of flood, "overflowing its banks, washing manure from the surface of cultivated land, scouring out foul ponds and ditches, and receiving the flushings of innumerable sewers and drains." As a consequence Dr. Frankland found the water "in a very filthy condition." And the worst of it is that he sees little hope of mitigating in the future this highly polluted condition of the river in seasons like the present, because, even where the towns in the Thames basin have adopted means for cleansing their sewage in ordinary weather, he says that storm-drainage water could only be submitted to purification at a cost altogether impracticable. The Companies which do not derive their supply from the Thames appear not to be under like unfavourable conditions, as they are reported to have delivered "bright and transparent water." And it is important to note that one of the Thames Companies was able to supply water "effectually filtered," while the rest were delivering "slightly turbid," "turbid," and "very turbid" water. The inspector appointed under the Metropolis Water Act of last session could not inaugurate himself as a public officer in a more useful way than by inquiring into Dr. Frankland's allegations, and making known his conclusions about the same, for the matter is one deeply interesting to three and a quarter millions of people.

A Second-year's Student.—We believe no alteration in the examination is contemplated at present; certainly not this year.

CARBOLIC ACID AS AN ANTISEPTIC.

To the Editor of THE LANCET.

SIR,—Permit me to make the following remarks in reply to the communication of Dr. Sansom in your issue of the 13th inst.

Dr. Sansom objects to the statement that "carbolic acid seems to act as an antiseptic solely by coagulating albumen," and indicates that the coagulating power of carbolic acid has been over-estimated. I have found the reverse to be the case after comparing it with a number of metallic salts, acids, &c., and that in this respect it is only surpassed by chromic acid.

In regard to the statement that "albuminous solutions are antiseptic when carbolic acid exists in them in too feeble proportion to cause any precipitate whatever." Different proportions of beef, also of albuminous solutions, mixed with aqueous solutions of carbolic acid varying in strength from 1-500 to 1-2000, in hermetically sealed tubes, putrefied in from three to six weeks in the autumn. It will be conceded, however, that in the end preservation of organic compounds, whether by coagulation, affinity for water, germ-poisoning (?), &c., depends solely on the preponderance of the antiseptic over the putrefactive action. I am sure of having seen an albuminous fluid putrefy to which was added sufficient carbolic acid at first to produce a haze, but have never observed a mixture of albumen and carbolic acid in "too feeble proportion to cause any precipitate whatever" which ultimately did not putrefy. Dr. Sansom is unable to understand the sentence, "In general chemical precipitates of albumen are soluble in water." I shall state my meaning, then, in other words: "Precipitates (of albumen) from unboiled solutions are generally soluble in pure water." (Miller's Organic Chemistry, p. 802.) This fact was adduced to show that the reason why carbolic coagula did not putrefy, while heat coagula did, was simply that the one contained an antiseptic, while the other did not. The carbolic acid cannot be washed out of its albuminoid precipitate without also dissolving the latter. Therefore the reason of antiseption in the one case and putrefaction in the other is clear. Carbolic acid does not oxidize, deoxidize, nor decompose sulphuretted hydrogen. In ordinary circumstances it has no affinity for alkalies; it is very insoluble in water; it has a low toxic power on minute life in organic fluids; its power in preventing the appearance of bacteria, &c., is also low; and its vapour also given off at ordinary temperatures seems to have no effect whatever in staying putrefaction or the appearance of life in those fluids. Dr. Sansom says that he has found carbolised air prevent the development of fungi, while air impregnated with sulphurous acid &c. does not. In my experiment with the carbolised air in the bottle, there was an exuberant development of penicillium on the hay solution. Dr. Sansom quotes the statement of Trautmann, "that decomposition cells were greatly decreased in number in air which contained carbolic acid." It is to be remembered, however, that those cells are noticed by others as bacteria and vibriones, and that Trautmann also states that they increase incredibly in air containing sulphuretted hydrogen, a gas upon which, as stated, carbolic acid has no effect.

Your obedient servant,

Glasgow, Jan. 20th, 1872. JOHN DOUGALL.

House-Surgeon.—We think our correspondent may accept the conclusion stated by Captain Galton as fairly representing the opinions of sanitarians in the matter. About 90 square feet per bed should be given for average cases of sickness; but this allowance ought to be much increased in the case of infectious fevers, lying-in wards, &c., and in hospitals where there are medical schools, or where the building itself is badly situated.

HOW TO PRESERVE SURGICAL INSTRUMENTS FROM RUST.

To the Editor of THE LANCET.

SIR,—Some of your correspondents have been lately writing about the prevention of rust in surgical instruments. In the *Engineer* of Dec. 22nd, 1871, pp. 427-8, there is an editorial article on the "Preservation of Iron," in which it is stated that "articles of polished iron or steel once dipped in cupro-ammonium *never afterwards rust or otherwise tarnish*" (the italics are the editor's, not mine), and it is further suggested that this might be useful for cutlery and surgical instruments. It being some years since I was a chemical student, cupro-ammonium is a new name to me, and I cannot find it in any of the books to which I have at present access.—Yours truly,

January, 1872. H. A.

THE RELATIVE EFFICACY OF HYOSCYAMUS, BROMIDE OF POTASSIUM, AND CHLORAL IN MANIA.

DR. JOHN A. CAMPBELL, assistant medical superintendent of Garland's Asylum, Carlisle, read a paper on the above subject at a meeting of the members of the Medico-Psychological Society, held at the Royal College of Physicians, Edinburgh, in November last, which subsequently appeared in the January number of the *Journal of Mental Science*. Dr. Campbell, in cases of insomnia, gave these three medicines for some time in the same doses to the same patients, with a view to arriving at a tolerably accurate idea of their relative efficacy, and the following are the results of his experiments:—Both chloral and tincture of hyoscyamus are sure sedatives to maniacal excitement, the former acting more quickly and more certainly as a sleep-producer of the two. Bromide of potassium, though to a certain extent a sedative to maniacal excitement and hypnotic, is not a sufficiently powerful sedative to allay intense excitement, or to procure sleep where great insomnia exists. A two-drachm dose of tincture of hyoscyamus is not quite equivalent to thirty grains of chloral. Two and a half drachms would probably be as nearly an equivalent as could be given. Bromide of potassium appeared to Dr. Campbell to be useful only where the excitement or insomnia is of a slight character.

We have been asked to publish the following:—

ON THE ILLNESS AND RECOVERY OF H.R.H. THE PRINCE OF WALES.

There was revelry and mirth,
And cloudless was the sky,
When a shadow crossed the earth,
And a darkness passed by;
A hundred hands would seize their brands
To shield him from the foe,
But, oh, not one could save the son
Of England now laid low!

Silent, unseen, the tainted air
Had crept around his heart;
The dark-winged Angel hovered there
With poised uplifted dart;
But midst their woes, at once arose
One earnest fervent prayer,
"For our loved Queen, be mercy seen,
Oh, Heavenly Father, spare!"

Swift on a beam of crystal light
A dove-like Angel flew,
Hurled back the fiend to darkest night,
And trimmed life's lamp anew.
The Nation's cry, which rent the sky,
And pierced to Mercy's throne,
Gave back the life to child and wife,—
He's doubly now our own.

Son of a Nation's ardent prayers,
Son of a people's love,
What Heaven approves and man reverses,
Such may thy future prove.
Then we'll not quail, nor brave hearts fail,
Nor blench at foreign frown,
But hand in hand, a loyal band,
Guard round Queen, Prince, and Throne.

January, 1872. EDWIN SAUNDERS.

Enquirer is not liable to prosecution through not being registered. He did not use titles falsely, which is the offence contemplated in the Act. Registration is not compulsory. The virtue of it consists, not in making titles legal, but in affording the only legal evidence of qualification.

Rothbury.—The Poor-law Board.

THE PROVIDENT DISPENSARY SYSTEM.

To the Editor of THE LANCET.

SIR,—You have very often used your influence for the benefit of the public and the profession, and I am glad to see that you approve *provident* dispensaries.

In THE LANCET for Dec. 9th, 1871, you express regret that the Northampton Provident Dispensary is become too much like a monopoly, and you emphatically say that such institutions should be "open to *all* the practitioners who desire to assist in extending them." I enclose you a copy of the Rules of the Provident Dispensary of this place. I am happy to say that, after defeating some very worthy, but in this case mistaken, medical men, we succeeded in preventing a monopoly here. We are struggling hard, and we shall succeed in the end; but we are fighting against another dispensary, which is wasting its efforts in assisting those who ought to assist themselves. I ask you whether any man *above an actual pauper* ought to be the subject of medical charity while such an institution as the Provident Dispensary exists?

The Charitable (the oldest) Dispensary for Plymouth, as an institution, is a very good one indeed, and excellently conducted; but no management can prevent it from undermining the self-respect and self-dependence of the sick who are the recipients of its benefits. I hope the day will come when such a formidable antagonist will be merged into the Provident Dispensary, and the result will be that its numerous subscribers will be otherwise enabled to relieve those who cannot help themselves.

I beg to call your kind attention to our Rules, which embody two things—

1. Any medical man may be on the staff.
2. Each medical man is, or may be, the centre of his own dispensary, as well as of his other patients.

Thus there is no "waiting-room" system, nor need any sick member do other than a private patient does when ill: he has only to send for, or go to, his doctor.

Yours obediently,

Plymouth, Jan. 23rd, 1872. FRED. W. P. JAGO, M.B.

P.S.—We have at present about 700 members.

THE MEDICAL DECLARATION REGARDING ALCOHOL.

A CORRESPONDENT asks when we are to expect a War Office order based upon alcoholic views recently promulgated by the profession? Mr. Cardwell must know that many thousands per annum would be saved by its promulgation! The machinery is very simple, as we know, for its adoption: just an extra case-book, a duplicate of the case to principal medical officer and his authority for the issue, and the soldier will surely be saved the chance of acquiring any taste for drink whilst in hospital! At the same time it would be well to add to this a proviso that all future medical candidates for the army must belong to the United Kingdom Alliance, and the thing is settled on a sound basis for ever!

Epsilon should communicate with his lawyer, and set him to inform his unfriendly neighbour that his conduct is libellous and unjust, and that, if persisted in, legal steps will be taken.

THE EATON FUND.

THE following additional subscription has been received at THE LANCET Office on behalf of the above:—

Mr. Garrard, Tickenhall £0 10 0

Q. U. J.—Watts's Dictionary is the only work which will satisfy our correspondent's requirements.

THE PURE AIR AND WATER SUPPLY OF LONDON.

To the Editor of THE LANCET.

SIR,—The powerful advocacy of the London press, when applied to social matters, appears to me always to carry conviction with it, and to command deserved success.

All your readers will readily acknowledge the vital importance of the best possible supply of pure air and water to London; but very few of them seem to be aware that, in consequence of the growth of London east, west, and south, the best of pure air and water comes only from the north, and that both are in very great danger of destruction.

The Alexandra Park, of 500 acres in extent, is the largest plot of uncovered land within the same distance of the Bank of England, St. Paul's, and Westminster Abbey. These 500 acres form a grand reservoir for the supply of pure air. The large reservoirs of the New River Company, by which the purest water is supplied to London, adjoin the 500 acres of the Alexandra Park before alluded to. It will thus be seen that the two great elements of life in their purest state, and to the greatest extent, exist side by side, close on the borders of our ever-increasing modern Babylon. They can only be kept pure, however, by the preservation of the whole 500 acres of the Alexandra Park from bricks and mortar. The present owners of this property have formed plans for covering 308 acres of this park with houses; and if this be done, not only will the noblest timber in England be sacrificed, but the pure air reservoir will be reduced in size by 308 acres, and the remaining 192 acres will be so injured that trees, shrubs, and flowers will die of poison. And while this poisoning is going on, the reservoirs of water will be polluted and rendered impure. The practical question now arises—How can this terrible evil be prevented? I reply by saying, never was an answer to a great question more easy. It is the bounden duty of our Board of Works either to purchase the Palace and Park for us, the people, or to encourage a public Company to do so, and in doing which they may exercise such control as to prevent any abuse of those elements of life, and keep them pure for all time. Comparatively speaking, many of your readers know little of the beauties of nature and art on the north of London. In our Alexandra Park we have the greatest diversity of natural beauty of hill and dale, with water and grand old timber, the growth of centuries, forming together not only the largest and most beautiful park in London, but perhaps one of the most beautiful parks for its size in England. The Palace is acknowledged by all who have seen it to be the most beautiful and at the same time the most useful of its kind. Now, as all these can be purchased for about £1300 an acre, I venture to ask whether public money can be better spent by the Board of Works or by a public Company? As a medical man, knowing as I do the value of pure air and water to the million, and the vast importance of having a proper place for the recreation of the public, and, if I may venture to say so, the refinement and elevation of their amusements, no better expenditure of money can possibly be made than by the acquirement of this property. Let me further add that not only is prevention better than cure, but far cheaper and better every way.

I am, Sir, yours obediently,
Wood Green, Jan. 27th, 1872. BASIL RINGROSE.

Dr. Osborn.—The "albuminoid ammonia," as it has been termed, is the measure of the *nitrogenous organic matter of all kinds*, and the free ammonia in a water is a sign of *very recent sewage*. We regard the water of Londesborough Lodge as pure because the quantity of free and albuminoid ammonia is unusually small in it. We attach no importance to the presence of nitrates in water. We did not investigate for poisonous metals, inasmuch as metallic poisoning was not alleged. We are sorry that we cannot find space for Dr. Osborn's paper on "The Analysis of the Bristol Water," &c.

CAUSES OF INEFFICIENT VACCINATION.

Dr. J. L. Paterson, of Edinburgh, puts the following questions:—

Would not analogy justify us in concluding that lymph preserved till the moment of its use in communication with the vital tissues, and at an equable temperature, must, in its turn, preserve its vitality better and stronger than when transferred for a longer or shorter period to glass tubes, and subjected to every variety of atmospheric influence? Is lymph of the eighth day the fittest for the purpose of vaccination? or, rather, has not the great practical convenience of using such made us overlook the fact that lymph of the sixth or the very beginning of the seventh day—understanding by a day a full period of twenty-four hours—would be in better condition for the adequate propagation of the virus? It would follow as a corollary to that proposition, if true, that in vaccinating we should reject lymph from any vesicle abnormally slow in its development.

WE are compelled to postpone notice of our correspondents' communications on the subject of Army Medical Reorganisation.

ANALYSIS OF URINE.

MR. WANKLYN has recently made a number of determinations of the amounts of organic matter and of mineral matter present in different samples of urine. A rather interesting result which seems to follow from this investigation is, that, although the proportion of total solids in urine is subject to great variation in health, the *relative* proportion of organic and mineral matter does not greatly vary. The organic matter exceeds the mineral matter, but hardly reaches twice as much. In disease, on the other hand, the organic matter is often in great excess. Mr. Wanklyn is also bringing out a new titration of urea and of albumen by means of the ammonia process.

R. A. P.—We readily give our correspondent credit for wishing to succeed only on right principles. A provident dispensary, to be satisfactory, must have a staff of medical men. Where there is only one, the scheme becomes a personal matter, and open to objection.

THE MEDICAL DIRECTORY FOR 1872.

To the Editor of THE LANCET.

SIR,—I beg to endorse the assertions of "M.D. Heidelberg," "Lic. Midwifery," and the others, whose letters you have been good enough to publish upon the subject, that the editors of the Medical Directory have neither been consistent nor yet carried out their promise. On perusing their last edition for 1872, I find that they have inserted L.M. after and in conjunction with L.R.C.P. Edin., L.R.C.S. Edin., M.B. & C.M. Edin., L.F.P. & S. Glas.; also from the Lying-in Hospitals of Dublin (Rotundo, Coombe, &c.) and Belfast, and also from some of those in London. Now, none of these—not even that from the Rotundo, which is chartered and is the largest in the United Kingdom—are accepted by the General Medical Council; and in order to show the value of those got from the R.C.P. Edin., R.C.S. Edin., and F.P.S. Glas., I may just mention that they are *only certificates* given gratuitously, and without additional study or examination, to all gentlemen who obtain the licences in Medicine and Surgery; and, further, the Secretary of the R.C.S. Edin. told me that the practice of giving a certificate of having been examined in (for the diploma in Surgery), and found competent to practise, Midwifery originated in order to meet the requirements of the Irish Poor-law Board, which requires either a registerable L.M. or a special certificate of competency from an acceptable source. Now, I contend that there is no more ground of justification for giving insertion to these unregisterable licences in Midwifery than to M.D. degrees obtained after examination at any of the legally constituted Universities of the Continent or the colonies, so long as they are only given to gentlemen who have already obtained a British qualification to practise; and, furthermore, I may add that while they have excluded foreign M.Ds got since 1858, they have still thought proper to retain non-professional ones—e. g., LL.D., Ph.D., M.A., D.Sc., B.A., and B.Sc., all of which are not registered by the General Medical Council, nor is any examination passed, strictly speaking, for many of the first three; and, besides this, I have proof that they have not scrupled to omit the insertion of certificates of the minor examinations of our own licensing bodies—e. g., the Arts and first Professional examinations of other bodies than those which happen to have conferred the final certificates or licences. Lastly, and out of good feeling, I would recommend—if they wish to make future editions as acceptable to all members of the profession as the previous ones have been, and do not desire to have another publisher in the field—that they modify their decision as regards the more respected, though at present non-registerable, M.Ds, and also give a *verbatim* copy of the Medical Act of 1858, with its subsequent additions, the particulars of which many practitioners know nothing of, and which extracts from Mr. Glenn's work "On the Laws affecting Medical Men" do not truly substitute.

Yours faithfully,
January, 1872. L. MED., SURG., AND MIDW. (Registered.)

SMALL-POX seems to flourish in America in proportion to the barriers placed against vaccination by the "liberty of the subject" plea. In New York the deaths last week were 216—a return which has redoubled the exertions of the Board of Health to enforce the sovereign precaution of Jenner on a recalcitrant population.

D. H.—"Gaudet," obviously.

Student.—The tubercle, in cases of tubercular meningitis, is, no doubt, generally confined to the pia mater at the base of the brain, and it is especially marked about the Sylvian fissures. Occasionally granulations are found on the upper surface.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me a small space in your valuable journal to make known a few of the hardships we unqualified assistants are compelled to submit to. I will begin with the duties, which all know to be irksome in the extreme, as may be gathered from the weekly advertisements of medical papers. The following is a type:—"Wanted, an unqualified assistant, well up in club, union, and private practice; capable of visiting, dispensing, and attending midwifery. Unexceptionable reference required." And then follows, "Salary £30 per annum." This simply means that for £30 per year, with board, the whole of the assistant's energies and time is to be laid at the disposal of his employer. True, he may get out once a fortnight, or, in technical terms, "every other Sunday," but that is all. From 9 A.M. till 11 and sometimes 12 P.M. are the prescribed hours of daily confinement, without anything to relieve the monotony of the surgery, save now and then a cut head, or perchance a tooth to be extracted. For my part I have often hailed with delight these petty accidents, as they serve in a way to dispel that ennui produced by everlastingly gazing on the same row of bottles.

The unqualified assistant is expected to dress as a gentleman of position, and this on the strength of the puny stipend already mentioned. But I fear I have already occupied your columns too long, and will beg of you, Sir, to suggest, if possible, some means to alleviate our position; for I venture to state that if we look from the top to the bottom of the social scale, we shall not find a harder or more thankless office than that of the unqualified assistant.

I remain, Sir, your obedient servant,
Bishopsgate-street Without, January, 1872. J. F. BURNS.

SAVE ME FROM MY FRIENDS!

Dr. Dunderdale, of Warrington, to whom we owe many apologies for not having noticed his communication before, writes to repudiate all knowledge of, or connexion with, a paragraph that appeared in the *Warrington Examiner* of the 13th ultimo, headed "Gratitude to Dr. Dunderdale." We can sympathise with our correspondent. If the good people who insist on showing their gratitude in this way only knew the personal annoyance they caused to right-minded and honourable men they would select some better method of doing it.

Mr. Thos. S. Wright, (Leamington.)—The different points in our correspondent's communication could not possibly be discussed within the limits of our columns.

MEDICAL ETIQUETTE AND UNQUALIFIED PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—May I ask a corner of your journal to expose the very uncourteous conduct of a brother practitioner towards me in a case which occurred lately? I would not have troubled you or your readers with it were it not that I observe a disposition to represent it to my disadvantage, and that it is not the first time I have had similar reasons of complaint against the same individual.

On the 26th of October last I was called to see a young gentleman of about twelve years of age, the son of a nobleman, who has shooting quarters in this neighbourhood. The patient was suffering from injury to the arm at the wrist. There was little or no displacement, and the limb was so much swollen that it was difficult at first to decide whether fracture had occurred or not. I gave directions for reducing the swelling, and it was the 1st of November before it could be clearly ascertained that the arm was fractured. On that day I applied splints, and the case—a very simple one—was progressing quite favourably, the patient being able to move about with the arm in a sling. On calling to see the young gentleman on the 7th November, I was informed that, by direction of his father, who had been for some time absent in another part of the country, and knew of the case only as reported to him, he had been visited by Dr. MacIntyre, of Fort William. This gentleman could not be ignorant that I had been attending the patient; but, without any communication with me, he proceeded to remove the splints and bandages. He professed to find the arm bent, and stated that it would be necessary to refracture it, though union could not then have taken place, only eleven days having elapsed since the injury had occurred. This, however, he did not do at once; but instead of procuring my help, which could have been done in an hour or so if required, he went back to Fort William, a distance of forty miles, and three days afterwards returned, accompanied by an unqualified assistant. To perform the operation, which, if at all necessary—and I affirm that it was not,—could have been more easily performed on his first visit, he administered chloroform. In doing so, he had only the help of this unqualified practitioner. *Few reforms are more needed* in the interests of the profession and of the public than that of putting an end to the employment in medical or surgical cases of young men, who, with facile courtesy, are called doctors.—Yours obediently,

JOHN CAMERON, M.D., &c.

Kinloid House, by Fort William, Dec. 8th, 1871.

A MEMORIAL OF JENNER.

AT a meeting of the Royal College of Physicians on January 23th last, Sir John W. Fisher, late Surgeon-in-Chief to the Metropolitan Police, presented through the President, Dr. George Burrows, an interesting memorial of the late Dr. Jenner. It consisted of a cow's horn, the open end of which had been fitted with a silver plate, on which was engraved the following inscription:—

"THIS COW'S HORN
was polished by that great benefactor to the human race,
THE LATE DR. JENNER,
and given by him in 1813 to
SIR JOHN W. FISHER,
who presented it to the Royal College of Physicians, by the President,
GEORGE BURROWS, M.D., F.R.S."

The best thanks of the College were offered to Sir John Fisher for the very interesting memorial.

Dr. Williams and *Dr. Barrar*.—The letters are in type, but for special reasons are held over for the present. We entirely agree with our correspondents.

OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—In reply to Mr. Lawson Tait, I beg to state that there have been 41 operations of ovariotomy performed at the Hospital for Women, Soho-square, during the last five years, and of these 26 recovered.

I am, Sir, yours, &c.,

WALTER RIGDEN, House-Physician.

Soho-square, Jan. 27th, 1872.

Mr. T. P. O'Donovan, (Farthingstone.)—We must apologise to our correspondent for having mislaid his letter of October 23rd. Would he have the kindness to forward us a short communication, in the form of an "original paper," regarding the priority of his discovery, and it shall receive attention. We have no record of the reports of fractured clavicle having been received at this Office.

Mr. William Renton.—The question is rather one of ethics than of etiquette. The course mentioned would be a wrong one, and not sustained by the qualifications specified.

THE LATE MR. WADE.

To the Editor of THE LANCET.

SIR,—In your obituary of my late lamented father, you state that he was born in 1788. This is incorrect, as he was only in his seventy-fifth year at the time of his death. Yours faithfully,

Dean-street, Jan. 31st, 1872. WILLIAM GEORGE WADE.

H. B. P.—1. The lymph may generally be obtained by application to the public vaccinators.—2. It is not contrary to law to vaccinate from revaccinated persons, but it is decidedly contrary to wisdom, Dr. Barbour's cases, published in THE LANCET last year, showing pretty conclusively that the lymph of revaccination is not so protective as primary lymph.—3. Whether a surgeon is expected to revaccinate members of Clubs depends upon contract or custom. If neither contract nor custom require him to do so, he should be specially paid for the work, as lying outside of the duties which he contracted to discharge.

THE following Sanitary Hints, suggested by Dr. Aldis, medical officer of health, and published by the vestry, are being circulated throughout the parish of St. George, Hanover-square:—

1. Keep cisterns and waterbutts clean and covered. 2. Cleanse drains, sinks, closets, and urinals, charge traps with water, and see that the closets are kept in working order, to avoid typhoid or enteric fever and the spreading of small-pox, measles, and fever when they occur. 3. Empty dustbins weekly, and keep them covered, but do not throw vegetable matter into them—better burn it. 4. Attend to ventilation and avoid overcrowding to prevent typhus fever; at least 300 cubic feet of air are required for each person. 5. Be temperate in eating and drinking. 6. Place a patient sick of an infectious disease into a room apart from others, removing carpets, curtains, and unnecessary furniture, or send the person to a special hospital. Apply to the inspector of nuisances for disinfectants, and about disinfecting the bedding and other things. 7. Vaccinate healthy children at the earliest possible age, and advise revaccination above the age of fifteen years. Medical men and others are invited to report cases of infectious disease.

D. S. G., (Liverpool.)—It is better to take no notice of the paragraph and its impertinent gossip.

Retired Half Pay.—Unless our correspondent was in practice before 1815, we apprehend that he can only claim in accordance with his qualification—that is, in surgical cases.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Playfair; Mr. Cooper Forster; Dr. Pavy; Dr. Menzies, Nantes; Dr. Stratley, Edinburgh; Dr. Gramshaw, Walton-on-the-Naze; Mr. Rudall, Melbourne; Mr. Bolton; Mr. Cameron; Dr. J. De Liefde; Dr. Owen; Mr. J. Pickett; Dr. Rigden; Mr. Stone; Mr. Cogan, Exeter; Mr. H. D. Spanton, Hanley; Mr. Johnson, Leeds; Dr. Lindsay; Mr. Hawthorn; Mr. Groom, Sunderland; Mr. Cooper; Mr. J. E. Adams; Mr. Wait; Dr. Manley; Mr. Slade; Mr. Rae; Mr. B. Creaton, Lincoln; Mr. Norton, Winchester; Dr. Ablett, Whitehaven; Dr. Ogston, Aberdeen; Dr. Ingram; Mr. Carleton, Ruthin; Mr. Darwin; Mr. Pilkington, Horsham; Mr. Robinson; Mr. W. Garrard; Dr. Paterson, Edinburgh; Mr. Davies; Mr. Fry; Mr. Gale, Colnstream; Mr. Marshall; Dr. Barras, Govan; Dr. M'Kechnie; Mr. Kelvin, Broomhall; Mr. Butler, Sutton-Benger; Mr. Reeves; Mr. Reid; Mr. Pullinger; Dr. Aldis; Dr. Ramsden, Dobcross; Dr. Aikman; Dr. Waters, Liverpool; Mr. Harrison, Sheffield; Dr. Sweenie, Dunmore; Dr. Brown, Colchester; Dr. O'Donovan; Mr. Stonehouse; Mr. Milner; Mr. Wyman, Petersfield; Mr. Greening; Dr. J. C. Reed; Dr. Osborn, Southampton; Dr. Nason, Nuneaton; Dr. J. C. Steele; Mr. Reilly; Dr. Collyer; Mr. Renton, Knaresborough; Dr. Poole; Dr. Williams, Hayward's Heath; Mr. Jas. Truman, Philadelphia; Mr. Ringrose; Dr. Smith, Shepton Mallet; Mr. Haynes, Chorley; Dr. J. W. Miller, Dundee; Mr. Moon; Mr. Corner, Walsingham; Dr. Caton, Liverpool; Mr. Morris; Mr. Prestwich, Oldham; Mr. Bigley, Taunton; Dr. Kempfer, Rio Janeiro; Mr. Griffiths; Mr. Boden, Smalley; Mr. Powell, Knaresborough; Mr. Ware, Barnstaple; Mr. Apotowsky; Dr. D. W. Williams; Mr. Beach; Dr. Ticehurst, Hastings; Mr. Walker, Scarborough; Mr. Banbury; Dr. Deane; Mr. Blaine, Jersey; Mr. Evans, Dartford; Mr. Shepherd, Warley; Mr. Stedman, Godalming; Dr. Hunter, Forres; Mr. Jackson, Uxbridge; Mr. Hughes, Dolgelly; Mr. E. Hammick, Arran; Mr. Elliott, Bournemouth; Mr. G. Holt, Ormskirk; Mr. R. Lamb, Whitehaven; Mr. Morton; J. R. W.; C. A.; A Second-year's Student; D. H.; A Constant Reader; H. P. R.; Retired Half Pay; Looker-on; Justice; Ex calibus; W. F.; G. C. S.; R. H. C.; H. M. S.; Jahen; M.D.; A Third-year's Student; &c. &c.

Isle of Man Times, Manchester Evening News, Gazette Médicale d'Orient, Manchester Courier, Merthyr Express, Birmingham Morning News, Newcastle Daily Chronicle, Melbourne Argus, Dundee Advertiser, Chelmsford Chronicle, Canada Lancet, Gardeners' Chronicle, La Epoca Médica, and *Philadelphia Medical Times* have been received.

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